

**City of Madison
Community Development Division**

**Request for Proposals
RFP #12061-2023**

**Affordable Housing Fund:
Rental Housing Development Proposals
Seeking 2024 WHEDA Tax Credits
(AHF-TC)**

Yellowstone Apartments



**Due Date:
August 15, 2023**

**Prepared by:
Mark Hammond
MSP Real Estate, Inc.
7901 West National Avenue
West Allis, WI 53214
612-868-9997**



August 15, 2023

Julie Spears
City of Madison Community Development Division
Suite 300, 215 Martin Luther King, Jr. Blvd.
Madison, WI 53703-3348

RE: Affordable Housing Fund RFP #12061-2023 Response

Dear Julie,

MSP Real Estate Inc. is pleased to present our application for the 2023 Affordable Housing Fund for our affordable housing development located at 426 South Yellowstone Drive, Yellowstone Apartments.

The site is located in a “Preferred Transit Oriented Development Area” under the City of Madison 2023 Affordable Housing Targeted Area Map and has great access to transit. Located between West Towne Mall and the University Research Park, the site is located central to various employment opportunities for individuals at all income levels. With historically primarily retail and office uses, the Odana Area Plan calls for additional housing units to create a more vibrant community. The established retail and office uses make a great existing support for affordable housing along with the schools located very close to the site. Although one of our other developments, Normandy Square Apartments, is within 0.5 miles of the site, Normandy is independent senior living and Yellowstone Apartments will be general occupancy, so we will serve two completely distinct low to moderate income groups in this area.

Yellowstone Apartments received an allocation of WHEDA Low-Income Housing Tax Credits (LIHTC) in May of 2023 so this eliminates the risk of the City allocating finite funding resources to a project that does not ultimately receive tax credits. The City of Madison Affordable Housing Funds are a final and critical funding source needed to make this project feasible. If Yellowstone Apartments is awarded City of Madison Affordable Housing Funds, this project will break ground in early 2024 with units delivered in 2025.

This proposal will provide a 60-unit family building with a combination of 51 affordable units and 9 market rate units. Twelve (12) of the affordable units will further be set aside for individuals/families at the 30% CMI rent and income levels.

Finally our proposal at 426 South Yellowstone Drive offers the following additional RFP preferences:

- Located in a Preferred Transit Oriented Development Area.
- Integrated supportive services provided through The Salvation Army of Dane County and the Dane County Veterans Service Office.
- Neighborhood enhancing ground floor commercial tenant, Anesis Therapy, a black-owned mental health outpatient clinic.
- At least 40% of the proposed affordable units are for households with incomes at or below 50%

CMI (about 70.6% of affordable units).

- Ten (10) three-bedroom units all at 60% CMI or below.
- Dedicated tot lot and indoor play room for children.
- Top floor community room with outdoor terrace, outdoor courtyard, and indoor fitness center for resident socialization/recreation.
- Commitment to achieving the Wisconsin Green Built Gold Standard & ENERGY STAR Multifamily New Construction certifications.
- Adherence to the Tenant Selection Plan Standards and Affirmative Marketing Plan Standards.
- Providing an internship opportunity to an ACRE student/graduate and/or a member of the BIPOC community.
- Leveraging the use of all available resources by already having previously secured WHEDA tax credits, applying for City of Madison and Dane County Affordable Housing Funds, and deferment of the maximum feasible amount of developer fee.

We are a long-term owner with a proven ability to secure the necessary sources of funding along with the construction expertise to manage complicated projects across the finish line that continue to add to our 30+ year history of exceptional affordable housing developments in the communities in which we work.

We look forward to working with City staff and elected officials to bring this project to fruition.

Sincerely,

Mark Hammond

Mark Hammond
Vice President of Development

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Affordable Housing Fund (AHF-TC) Application

This application form should be used for projects seeking City of Madison AHF-TC funds. Please format for logical page breaks. Applications must be submitted electronically to the City of Madison Community Development Division by **noon on August 15, 2023**. Email to: cddapplications@cityofmadison.com

APPLICANT INFORMATION

Proposal Title:	Yellowstone Apartments		
Amount of Funds Requested:	\$2,040,000	Type of Project:	<input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Acquisition/Rehab
Name of Applicant:	MSP Real Estate, Inc.		
Mailing Address:	7901 West National Avenue, West Allis, WI 53214		
Telephone:	952-351-4540	Fax:	952-935-7202
Admin Contact:	Alyssa Klecker	Email Address:	aklecker@msphousing.com
Project Contact:	Alyssa Klecker	Email Address:	aklecker@msphousing.com
Financial Contact:	Mark Hammond	Email Address:	mhammond@msphousing.com
Website:	https://msprealestateinc.com/		
Legal Status of Maj. Owner:	<input checked="" type="checkbox"/> For-profit <input type="checkbox"/> Non-profit	LIHTC Application:	<input type="checkbox"/> 4% only <input type="checkbox"/> 4+4% <input checked="" type="checkbox"/> 9%
HOME-ARP Set-Aside:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Anticipated WHEDA Set-Aside:	<input checked="" type="checkbox"/> General <input type="checkbox"/> Preservation <input type="checkbox"/> Non-Profit <input type="checkbox"/> Supportive Housing		
Federal EIN:	41-1630478	SAM/ UEI #:	

* If seeking federal funds

HOME-ARP SET-ASIDE APPLICANTS

If applying to this RFP under the HOME-ARP set-aside please check the box for “Yes” above. For questions in this application that do not apply, please write “Not Applicable.”

AFFIRMATIVE ACTION

If funded, applicant hereby agrees to comply with the City of Madison Ordinance 39.02 and file either an exemption or an affirmative action plan with the Department of Civil Rights. A Model Affirmative Action Plan and instructions are available at <https://www.cityofmadison.com/civil-rights/contract-compliance/affirmative-action-plan/individual-developers>.

LOBBYING RESIGTRATION

Notice regarding lobbying ordinance: If you are seeking approval of a development that has over 40,000 gross square feet of non-residential space, or a residential development of over 10 dwelling units, or if you are seeking assistance from the City with a value of over \$10,000 (this includes grants, loans, TIF, or similar assistance), then you likely are subject to Madison’s lobbying ordinance, sec. 2.40, MGO. **You are required to register and report your lobbying.** Please consult the City Clerk for more information. Failure to comply with the lobbying ordinance may result in fines of \$1,000 to \$5,000. You may register at <https://www.cityofmadison.com/clerk/lobbyists/lobbyist-registration>.

CITY OF MADISON CONTRACTS

If funded, applicant agrees to comply with all applicable local, state and federal provisions. A sample contract that includes standard provisions may be obtained by contacting the Community Development Division at (608) 266-6520.

If funded, the City of Madison reserves the right to negotiate the final terms of a contract with the selected agency.

SIGNATURE OF APPLICANT

Enter Name: Mark Hammond

By submitting this application, I affirm that the statements and representations are true to the best of my knowledge.

By entering your initials in this box you are electronically signing your name as the submitter of the application and agree to the terms listed above.

Date: 8/15/2023

PROPOSAL DESCRIPTION

1. Please provide a brief overview of the proposal. Describe the impact of the proposed development on the community as well as other key characteristics.

Yellowstone Apartments as proposed is a 60-unit family project that contains 51 (85%) of affordable housing at or below 60% CMI with a commitment to 40 years of affordability. Twelve (12) of these affordable units will be further segmented for individuals and families at the 30% CMI limit. Supportive services will be integrated with The Salvation Army of Dane County (TSA) and Dane County Veterans Service Office (CVSO) for the 30% CMI units. A mix of one, two, and three-bedroom units spread across income levels will be offered in order to serve the varying needs of individuals and families in the community. This includes 10 three-bedroom units (16.7% of total units), all of which are affordable units. Unit sizes range from roughly 664 sf for one-bedroom units to 1,339 sf for three-bedroom units. The building will consist of five stories of residential units and one level of residential units/structured parking. The site is on a slope so essentially half of the ground floor will be exposed to Grand Teton Plaza and South Yellowstone Drive which is where the residential units and commercial space will be located, and half of the ground floor will not be exposed which is where the structured parking will be located. The approximately 650 sf commercial space on the ground floor will be operated by Anesis Therapy, a black-owned mental health outpatient clinic. The development will also feature a top floor community room and outdoor terrace along with a ground floor fitness center, indoor play room, on-site leasing office, and outdoor courtyard and tot lot.

This new construction project will be located in the Odana Area at 426 South Yellowstone Drive, Madison, WI within a "Preferred Transit Oriented Development Area" on the City of Madison 2023 Affordable Housing Targeted Area Map. With it's location between Mineral Point Road and Odana Road, the site is well-served by transit and is located in close proximity to many services/amenities. Various schools are located just across the street, and the site is located central to many employment opportunities at every income level as the site is located between both West Towne Mall and the University Research Park. Yellowstone Apartments will also take advantage of the future BRT route that will run along Mineral Point Road.

Yellowstone Apartments will provide much needed affordable housing in the City of Madison in a location that has especially great access to transit, education, and employment opportunities. Yellowstone Apartments will contribute to the County's and City's goals of providing more options for affordable housing in locations well served by services/amenities and access to transit.

2. Please describe the following aspects of the proposed development:

Type of Project: New Construction Acquisition/Rehab or Preservation
Type of Project: Multi-family Senior (55+ or 62+ yr. old): _____

Total number of units: 60
Total number affordable of units (<60% CMI): 51 Total % affordable of units (<60% CMI): 85%
Total amount of AHF requested per affordable unit: \$40,000
Number of units supported by Section 8 project-based vouchers, if known: _____ PBV CMI level: _____
Length of Period of Affordability Commitment (min. 40 years): 40 years

3. Please indicate the organization of the development team for the proposed development:

Non-Profit Developer For-Profit Developer
 Non-Profit Controlling Member For-Profit Controlling Member

4. Please indicate the loan terms requested for this proposal as described in Section 1.4 of the RFP. Is the applicant requesting a waiver of shared appreciation in exchange for permanent affordability?

The loan terms requested for this proposal are consistent with the typical 50/50 split of the funds between the cash flow note and the long term deferred note as mentioned in the RFP guidelines. We are not requesting a waiver of shared appreciated in exchange for permanent affordability. We are committing to 40 years of affordability on this project.

AFFORDABLE HOUSING INITIATIVE FUND GOALS & OBJECTIVES

5. Please check which of the following goals outlined in the Request for Proposals are met with this proposal:

- 1. Increase the supply of safe, quality, affordable rental housing, especially units affordable to households with incomes at or below 30% of area median income, that ensure long-term affordability and sustainability.
- 2. Preserve existing income- and rent-restricted rental housing to ensure long-term affordability and sustainability.
- 3. Improve the existing rental housing stock through acquisition/rehab to create long-term affordability and sustainability.

AFFORDABLE HOUSING NEEDS

- 6. Describe Development Team’s knowledge of and experience in identifying and addressing affordable housing needs of the City of Madison.

MSP Real Estate has extensive experience in identifying and addressing affordable housing needs since 1991 and creating affordable housing developments throughout Wisconsin, Minnesota, and Indiana (see Section 2A.1.i for attached list of our tax credit housing).

MSP Real Estate has collaborated with the City of Madison on four affordable housing projects in recent years. MSP Real Estate was a successful applicant for the 2016 Affordable Housing Fund (AHF) (for 2017 WHEDA Credits) and earned an award of 2017 and 2018 Low Income Housing Tax Credits (LIHTC) from WHEDA for our 58-unit (48 affordable units) project, Normandy Square, located at 6509 Normandy Lane. MSP Real Estate was a successful applicant for the 2017 AHF (for 2018 WHEDA credits) and earned an award of 2018 LIHTC from WHEDA for our 112-unit (95 affordable units) project, The Grove, located at 202 & 206 Cottage Grove Road. MSP Real Estate was a successful applicant for the 2019 AHF (for 2020 WHEDA Credits) and earned an award of 2020 LIHTC from WHEDA for our 110-unit (93 affordable units) project, The Oscar Apartments, located at 1222 & 1244 Huxley Street. Most recently, MSP Real Estate was a successful applicant for the 2021 AHF (for 2022 WHEDA Credits) and earned an award of 2021 and 2022 LIHTC from WHEDA for our 79-unit (62 affordable units) project, The Heights Apartments, located at 2206 University Avenue.

See Section 2 for more detail on MSP Real Estate knowledge and experience.

- 7. Please describe the anticipated demand for the proposed target populations served in this location.

A market study has been completed for the proposed project by Dale Mussati of Lexington Realty Services. Historic low vacancy rates and strong lease-up schedules continue to be the trend in Madison, WI. As such, the market study estimates that the project will reach full occupancy in approximately four months after receiving certificate of occupancy with an absorption rate of 18 units/month. With a calculated capture rate of 0.4% and a penetration rate of 11.2%, there appears to be an unmet need for affordable family rental housing in the primary market area with a sufficiently large target market to absorb the units at Yellowstone Apartments.

INTEGRATED SUPPORTIVE HOUSING UNITS

8. Provide the number and percent of Integrated Supportive Housing Units proposed, the income category(ies) targeted for these units, and the target service population(s) proposed (e.g., households currently experiencing homelessness listed on the Community-wide Prioritized List, veterans, persons with disabilities, formerly incarcerated individuals, other, etc.). Describe the consultation and coordination between Developer, the Property Manager and the lead Supportive Service Coordination Agency that occurred prior to this application and planned to design the development in terms of matching unit mix (income and size) to the targeted population.

Yellowstone Apartments will include 12 (20%) Integrated Supportive Housing units at the 30% CMI income & rent level.

Twelve (12) units at 30% CMI will have integrated supportive services provided by outside agencies with case management services available.

-5 units for homeless/risk of homeless (The Salvation Army of Dane County)

-7 units for Veterans (Dane County Veterans Service Office)

The supportive services available to the residents at Yellowstone Apartments will be provided for by the following non-profit agencies: The Salvation Army of Dane County and Dane County Veterans Service Office. We have a signed support letter from The Salvation Army of Dane County and a signed MOU with Dane County Veterans Service Office (see Section 2C.1 for the support letter & MOU). MSP has been in communication with both The Salvation Army of Dane County and Dane County Veterans Service Office regarding this project. The supportive service structure will mirror that of our previous City of Madison projects where we worked with these two organizations.

Future residents that we anticipate receiving supportive services at Yellowstone Apartments are Veterans and homeless/nearly homeless individuals/families that meet Federal Poverty Guidelines. We also anticipate individuals that have special needs or disabling conditions as a target service population. This doesn't preclude however other supportive agencies interfacing with the residents of Yellowstone Apartments.

MSP has worked with both of these supportive service partners on our previous projects in the Madison area. The supportive service structure will mirror that of previous projects. The Salvation Army of Dane County has tended to have a slightly higher need for the two and three-bedroom units and the Dane County Veterans Service Office has tended to have a higher need for the one-bedroom units. We have a mix of units types at the 30% CMI level to provide for this mix of needs, including affordable three-bedroom units, and feel that these supportive service providers are a good mix for that reason as well. We have also had several individuals/families referred from these supportive service partners in the past that qualified for the 50% CMI units rather than 30% CMI units. MSP will work with these supportive service partners to try and accommodate their needs throughout the leasing process.

9. Please describe your proposed integrated supportive housing approach that will go beyond meeting WHEDA's supportive housing requirements outlined in the Appendix S Checklist of the WHEDA Qualified Allocation Plan targeting veterans and/or persons with disabilities. Please elaborate on which target populations you plan on serving.

As indicated in Question 8, we intend on filling the integrated supportive housing units with the following ranges of individuals/families in need of additional supportive services at the 30% CMI level.

- 5 units for homeless/risk of homeless (The Salvation Army of Dane County)
- 7 units for Veterans (Dane County Veterans Service Office)

While these identified ranges of supportive service units (along with identified supportive service partners) meet all the requirements of the WHEDA tax credit application including Appendix S of the Qualified Allocation Plan, if our ranges of 30% CMI units are not filled with the targeted supportive housing populations specified, we will additionally go above and beyond these requirements by working with other agencies and organizations to identify individuals and families from the community wide priority list for at least a portion of the remaining available units if required to fill those supportive units.

We have spread our 30% CMI units across one, two, and three-bedroom units in order to provide opportunities and meet the needs of individuals and families of varying sizes. We have also created a more flexible tenant screening criteria for our 30% CMI units that goes above and beyond the WHEDA requirements.

10. Identify the partnership(s) with supportive service agencies that have been or will be formed to serve the target population(s) for the supportive housing units, including service provider(s) from the Continuum of Care (see Attachment C), if applicable. Provide a detailed description of the type (e.g., assessment and referral, on-site intensive case management, etc.) and level of supportive services (% FTE and ratio of staff: household) that will be provided to residents of the proposed project.

Collaborative referral based supportive service partnerships have been established with The Salvation Army of Dane County and Dane County Veterans Service Office.

1. The Salvation Army of Dane County (weekly on-site intensive case management will be provided for all referrals by The Salvation Army, see support letter in Section 2C.1.i): The Salvation Army will refer individuals and families that it provides assistance to under programs called Dane County Assists With New Starts (DAWNS) and RISE. Individuals and families transitioning from homelessness to housing can be offered a rapid rehousing package through the DAWNS and RISE programs. This rapid rehousing package consists of weekly case management sessions, security deposit, and first month's rental assistance for the DAWNS program and up to a years' rental assistance in the RISE program. Additional rental assistance may be granted on an individual case by case basis. Case management support can last up to two years and will be provided at the resident's apartment or The Salvation Army offices. The Salvation Army will extend its monetary rental resources and caseworker support under the DAWNS and RISE programs to individuals/families that it refers to live at Yellowstone Apartments.

2. Dane County Veterans Service Office (referral, see executed MOU in Section 2C.1.ii): This is the County agency responsible for assisting Veterans in accessing benefits and referring them to resources in the community, including affordable housing. Therefore, MSP Property Management marketing and outreach efforts for Veterans will be coordinated with the Dane County Veterans Service Office. The Dane County Veterans Service Office assists Veterans who may need supportive services and are eligible for veteran specific services to identify where to obtain those services from a range of providers who are primarily funded by the U.S. Department of Veterans Affairs. MSP Property Management will establish a working relationship with the Dane County Veterans Service Office locally and will work with them and their contracted service providers and tenants to address any issues that may arise that could affect their success in maintaining their tenancy.

11. CDD expects that supportive service partners have access to adequate compensation for the dedicated services provided to residents of the development. In order to ensure the success of the development, the partnership(s), and the tenants, describe the level of financial support to help pay for or subsidize supportive services that the development will provide annually to the identified supportive service partner(s). Identify any other non-City funding sources contemplated or committed for supportive services outside of this project. Explain any arrangement with developer fee sharing, "above the line" payments in the operating budget, "below the line" payments out of available

cash flow and/or percent of developer fee shared. CDD is open to deferral of AHF Cash Flow Note payments to ensure meaningful financial support to supportive service partners.

Attach a letter from the service provider(s) detailing the services they intend to provide to residents of the supportive housing units, the cost of those services and how those services will be financially supported (i.e., through the development, fundraising, existing program dollars, etc.).

We are confident that the supportive service partnerships we have arranged for with this development proposal will allow the development to be successful and provide the necessary supportive services for the residents that require it.

More specifically, The Salvation Army of Dane County will provide all case management funding support necessary for those residents referred from their DAWNS and RISE programs (see Section 2C.1.i for support letter). The majority of The Salvation Army supportive services are funded by Dane County, United Way, and other government donations and fundraising donations. The DAWNS program is funded by Dane County and the RISE program is funded by HUD.

The Dane County Veterans Service Office will assist veterans in identifying where to obtain services from a range of providers who are primarily funded by the U.S. Department of Veterans Affairs (see Section 2C.1.ii for executed MOU). Dane County Veterans Service Office funds its veterans case management from the Dane County operating budget. Many partnering providers and services identified through the Dane County Veterans Service Office are funded by the U.S. Department of Veterans Affairs.

Due to the financial constraints of the operating budget to allow for the required debt service coverage ratios to be achieved, supportive service funding support is provided by our supportive service partners.

MSP Real Estate also has a signed MOU with Anesis Therapy, a black-owned mental health outpatient clinic, to lease the approximately 650 sf commercial space on the ground floor. Fees charged for services provided in the facility will be affordable to persons at or below the 60% income level with a sliding scale fee schedule, which has fees starting at \$5 per visit for the lowest income residents. MSP Real Estate has agreed to lease the facility to Anesis Therapy at well below market rate rents in order to help ensure the Operator can provide services that will help improve the life of community residents and be affordable to individuals whose income is at or below 60% of the area median income. The project is subsidizing the rent paid by Anesis Therapy for the commercial space by approximately \$10,000-\$15,000 per year. Beyond the fees clients pay for services and the project-subsidized rent, Anesis Therapy will provide all other funding support necessary for operations.

PROPERTY MANAGEMENT: TENANT SELECTION & AFFIRMATIVE MARKETING

12. Confirm that you have read and agree to the Affirmative Marketing Plan and Tenant Selection Standards found in RFP Attachments B-1 and B-2.

Yes, I confirm.

13. Describe the planned approach, relationship and coordination between the Property Manager and the lead Supportive Service Coordination Agency for lease up and ongoing services. Have these entities previously participated in an in-depth pre-lease up coordination process with these target population(s) in coordination with relevant community partners (e.g., CDA, DCHA, VASH, CE, etc.)? How will these entities work together to ensure a successful development well-integrated with the immediate neighborhood and community?

MSP Property Management (MSPPM) will reach out to the supportive service partners when it begins its marketing outreach. As part of this initial outreach, MSPPM will provide marketing materials for the project and request referrals for our 30% CMI set aside apartments at Yellowstone Apartments. The supportive service partners will also provide marketing materials to MSPPM. MSPPM will endeavor to make existing and prospective residents aware of services and resources available by provision of a tenant resource area within the common area of the development. As vacancies arise for the supportive units throughout the duration of the project, MSPPM will continue to reach out to the supportive service partners for referrals. MSPPM will also work with the supportive service partners, their contracted service providers, and tenants to address any issues that may arise that could affect tenants' success in maintaining tenancy.

MSP has recently participated in in-depth pre-lease coordination processes for two of our most recent projects in the City of Madison, The Oscar Apartments and The Heights Apartments. For The Oscar Apartments, MSP participated in pre-lease coordination meetings with the City, County, The Salvation Army of Dane County, VASH,

and Joining Forces for Families (JFF). MSP is currently participating in pre-lease coordination meetings for The Heights Apartments with the City, County, The Salvation Army of Dane County, and VASH. We plan to have similar meetings for this proposal, Yellowstone Apartments. These meetings help to ensure that everyone is on the same page regarding available units, status of current applications, and timing. As MSP has partnered with these supportive service partners (The Salvation Army of Dane County and Dane County Veterans Service Office) on several past projects, there is an open dialogue between property management and these supportive service partners from previous projects that makes the collaboration on new projects easier as we learn more about each other's processes and needs on each project.

14. Describe the affirmative marketing strategy and any other strategies to engage the target populations for this proposal. Specifically outline how this development's marketing will be consistent with the City of Madison's Affirmative Marketing Plan Requirements (Attachment B-2 of the RFP), especially for Asian and Latinx populations which tend to be under-represented in AHF Completion Reports.

MSP Property Management will follow the Affirmative Marketing Plan Requirements as outlined in the RFP response. See Section 1B for Yellowstone Apartments' Affirmative Fair Housing Marketing Plan. This plan aligns with the City of Madison's Affordable Housing Affirmative Marketing Plan Requirements. For outreach specifically to Asian and Latinx populations mentioned above, MSP Property Management will reach out to the AAPI Coalition of Wisconsin and the Centro Hispano of Dane County respectively.

15. How will you affirmatively market to populations that will be identified as least likely to apply? Detail specific partnerships that the development team, Property Manager, and/or other agencies in this proposal have had with community agencies and organizations that provide direct housing search and related assistance to households least likely to apply. Please reference successful past practices, relationships with agencies and/or marketing materials used.

See Section 1B for Yellowstone Apartments' Affirmative Fair Housing Marketing Plan (AFHMP). Marketing practices to those 'least likely' identified groups in our AFHMP include directly reaching out over phone, email, and occasionally in person to organizations recognized in our AFHMP. The property manager will discuss the project and provide marketing materials including flyers and brochures. MSPPM has contacted several of these organizations on past projects and formed relationships that will be helpful for marketing Yellowstone Apartments as well. Outreach will occur during initial lease-up and throughout the project duration for ongoing marketing of vacant units. Other proposed marketing activities included in the AFHMP include Apartments.com & Craigslist through SEO targeting with keywords as well as targeted mailings to residents within the census tract area.

16. What percentage of maximum LIHTC rents are used for 50 & 60% units? Describe the proposed development's policy toward notification of non-renewals and limiting rent increases for lease renewals? How will it be ensured that prospective long-term tenants be protected from significantly and rapidly rising contract rents increases allowed under the published rent limits, even under the rent limit increase requirements in this RFP and Loan Agreement.

Our 50% CMI unit rents are at max. Our 60% CMI unit rents are at about 85.5% of max. MSP has always been and will continue to be sensitive to rent increases. We will follow the RFP guidelines in regards to notification of non-renewals and limiting rent increases for lease renewals.

PUBLIC BENEFIT AND RISK

17. Please describe the public benefit of the proposed housing development and the risks associated with the project.

The public benefit of Yellowstone Apartments is to create new, high quality affordable housing for the City of Madison in a "Preferred Transit Oriented Development Area," providing future residents with great access to transit including being located along the future BRT route and in close proximity to services/amenities and jobs/education. This project especially aims to serve some of the lowest income individuals/families at 50% or less of the county median income, along with providing supportive services for the 30% CMI units for Veterans and homeless/nearly homeless individuals and families. These residents will have greater access to other supportive services because of an affordable place to live, helping residents maintain quality affordable housing.

Yellowstone Apartments will contribute much needed affordable workforce housing in the City of Madison. Although one of our other affordable housing developments, Normandy Square Apartments, is within 0.5 miles of the site, Normandy is independent senior living and Yellowstone Apartments will be general occupancy, so we will serve two completely distinct low to moderate income groups in this area. Yellowstone Apartments will provide a new, quality affordable housing option in this area, taking advantage of the location's opportunities.

The risks associated with this project relate mainly to the financial structure of the sources of financing and pools of soft financing necessary for the project's completion. Timing also remains a risk as there is a long lead time from concept to fruition in these types of transactions. Increases in construction costs due to inflationary pressures, unforeseen increases in the construction budget, rising interest rates, and lower tax credit pricing are all additional factors that could fluctuate to create a project that is no longer financially feasible.

SITE INFORMATION

18. Address of Proposed Site: 426 South Yellowstone Drive, Madison, WI 53719

19. In which of the following areas on the Affordable Housing Targeted Area Map (see Attachment A) is the site proposed located? Please check one plus Limited Eligibility, if applicable.

Note: projects applying under the HOME-ARP set-aside may only be located in Preferred TOD and Eligible Core Transit areas.

- Preferred TOD Area
- Eligible Core Transit Area
- Preservation & Rehab Area (Ineligible for New Construction)
- Limited Eligibility Area

20. Identify the neighborhood in which the site is located: No specific neighborhood is identified for the site, but the site is located within the Odana Area Plan Planning Area for reference.

21. Date Site Control Secured: 11/18/2022

22. Explain why this site was chosen and how it helps the City to expand affordable housing opportunities where most needed. Describe the neighborhood and surrounding community. Provide the streets of the closest major intersection as well as known structures/activities surrounding the site that identifies where the site is located. (Attach a map indicating project location. Include one close-up map of the site and a second map using the AHF Targeted Area Map to show the site in the context of the City.)

Yellowstone Apartments will be located at 426 South Yellowstone Drive in the Odana Area. With its location between Mineral Point Road and Odana Road, the site is well-served by transit and is located in close proximity to many services/amenities as can be seen in the below chart. It is also located central to many employment opportunities at every income level as the site is located between both West Towne Mall and the University Research Park. Yellowstone Apartments will also take advantage of the future BRT route that will run along Mineral Point Road. Although one of our other affordable housing developments, Normandy Square Apartments, is within 0.5 miles of the site, Normandy is independent senior living and Yellowstone Apartments will be general occupancy, so we will serve two completely distinct low to moderate income groups in this area. Yellowstone Apartments will provide a new, quality affordable housing option in this area, taking advantage of the location's opportunities.

Schools assigned to the address of the site include Muir Elementary, Gillespie Middle, and Memorial High. A great benefit of this site is that each of these schools are within 0.65 miles of the site (a 20 minute walk or 5 minute bike) allowing kids to get easily to and from school without a vehicle. Walking/biking is the most efficient route to these schools as they are so close by. Several childcare centers are also located in close proximity to the site as can be seen below. The closest public library is the Madison Public Library - Alicia Ashman just 1.74 miles away.

Both the UW Health West Towne Clinic and UW Health Odana Road Clinic along with various pharmacies as can be seen below are located in close proximity to the site, allowing future residents to stay on top of their medical/health needs.

Several full service grocery stores and retail are located near to the site as well. This allows residents to shop for everyday needs and services as well as provides additional employment opportunities for residents. For recreational and social purposes, there are several parks and community centers located within 1.5 miles of the site.

Transit routes will offer residents easy and quick access to transportation in all directions of the City, allowing residents to easily navigate to employment opportunities, services, and amenities, especially if they do not have their own personal vehicle. Bus Routes A, H, & J all have bus stops within 0.6 miles of the site. All routes provide consistent weekday and weekend service. Route A travels from West Towne Mall to the Sun Prairie Park & Ride, Route H travels from West Towne Mall to the South Transfer Point, and Route J travels from West Towne Mall to the UW Campus. The Yellowstone Apartments site is also located within 1.5 miles of the West Transfer Point and is located along the future BRT route on Mineral Point Road. With a 72 Walk Score as "Very Walkable" and a 61 Bike Score as "Bikeable," both walking and biking are viable options to get around.

As can be seen from the list of amenities below, many services and amenities are located in close proximity to the site, allowing residents to save money on transportation costs. In addition, the transit routes and future BRT route will further allow residents to access the surrounding amenities/services. The project will also be providing underground parking, but with this location the residents will not need to rely on a personal vehicle to get around the neighborhood and City. Yellowstone Apartments will contribute much needed affordable workforce housing in the City of Madison and in a great location.

23. Identify any existing buildings on the proposed site, noting any that are currently occupied. Describe the planned demolition of any buildings on the site, if applicable.

There is currently an office building onsite that is planned to be demolished. The current owner of this building is also the occupant. The current owner, Evident Change, is a non-profit where essentially now all of the employees are working remote. They are selling this building in order to downsize into a smaller office. They are planning to relocate prior to closing.

Demolition of the building would be expected once all of the funding sources for this application have been awarded. Demolition is not expected to occur until after January 2024.

24. Describe the historical uses of the site. Identify if a Phase I Environmental Site Assessment has been completed and briefly summarize any issues identified. Identify any environmental remediation activities planned, completed, or underway, and/or any existing conditions of environmental significance located on the proposed site.

The current use of the site is an office building. Other historical uses are unknown at this time. At an initial glance, our environmental consultant did not identify any issues. We will have a Phase I completed for the site closer to the land acquisition date/closing on the project.

25. Current zoning of the site: Suburban Employment (SE) within the Transit-Oriented Development (TOD) District An interactive version of the Zoning Map can be found linked [here](#).
26. Describe any necessary planning and zoning-related approvals (rezoning, conditional use permit, demolition, etc.) that must be obtained for the proposal to move forward.

The subject property is zoned Suburban Employment (SE) within the Transit-Oriented Development (TOD) District and is zoned appropriately to accommodate the proposed project with 60 units of multi-family housing and an approximately 650 sf commercial space on the ground floor. The project has also already received conditional use approval. A demolition permit and building permit will need to be obtained prior to construction.

27. Describe the proposed project's consistency with the land use recommendations, goals and objectives as may be relevant in adopted [plans](#), including the City of Madison Comprehensive Plan (adopted 2018), Neighborhood Plans, Special Area Plans, the Generalized Future Land Use Map (interactive version linked [here](#)), and any other relevant [plans](#).

During the process of receiving conditional use approval, the project was found to be consistent with all relevant adopted plans. Several key points of alignment are illustrated below.

The City of Madison Comprehensive Plan (adopted 2018) emphasizes the need for Madison to have a range of quality affordable housing located throughout the City. Feedback from the community also addresses this high need for quality affordable housing, especially for developments located near amenities and transit to allow residents to save on transportation costs and have greater opportunities for jobs. The plan encourages integrating affordable housing into neighborhoods for greater support and chances of success. The plan also states "Integration of affordable housing into mixed-use areas is encouraged, especially along major transit corridors. Multifamily residential within the mixed-use category should contain a mixture of unit sizes, including three bedroom (or larger) units" (Page 22).

Yellowstone Apartments is consistent with the above recommendations from the Comprehensive Plan. Located along Mineral Point Road, the site takes advantage of a major transit corridor and the future BRT route. As such, the site has great access to area amenities and transit. The Odana Area is already quite established with various office and retail uses. Integrating affordable housing into this area, especially with great transit access, provides plentiful employment opportunities and access to amenities/services for future residents which will provide additional support for the development's success. Yellowstone Apartments also incorporates a mixed-use element with commercial space on the first floor and will offer a range of unit sizes from one to three bedrooms to provide opportunities for individuals/families in the community with varying needs.

As noted in the Odana Area Plan, heavy single-use retail and single-use office space along with large parking lots have historically been developed in this area. The plan recognizes a need for more residential development, including affordable and/or rental housing, along with mixed-use development to transition this area to a pedestrian-friendly, vibrant community (Pages 1-2). The plan also recommends to "support affordable housing of all types, including different sizes, costs, and income levels for a broad range of residents" (Page 23). There are numerous references to the utilization of the City of Madison's Affordable Housing Fund (AHF) to address the high need for additional affordable units. Overall, "The ultimate goal of this plan is to unlock the area's significant development potential and guide the transition and redevelopment of predominantly commercial areas into mixed use Activity Centers" (Page 2).

By integrating a mixed-income, mixed-use housing development into the Odana Area, Yellowstone Apartments is also in alignment with the Odana Area Plan to address the need for more residential development in order to transform the area into a more pedestrian-friendly, vibrant, and mixed-use community. As previously mentioned, Yellowstone Apartments is also located in a "Preferred Transit Oriented Development Area" on the City of Madison 2023 Affordable Housing Fund Targeted Area Map furthering the City's goals of where they would like to see and help fund affordable housing development.

28. Identify the distance the following amenities are from the proposed site.

Type of Amenities & Services	Name of Facility	Distance from Site (in miles)
Full Service Grocery Store	Gordon Food Service Store	0.26 mi
	Woodman's Food Market	0.83 mi
	Metcalfe's Market	0.95 mi
	Hy-Vee	1.20 mi
Public Elementary School	John Muir Elementary School	0.65 mi
	Stephens Elementary School	0.83 mi
	Crestwood Elementary School	1.27 mi
	Milele Chikasa Anana Elementary School	1.29 mi
Public Middle School	Gillespie (previously Thomas Jefferson) Middle School	0.65 mi
	Hamilton Middle School	1.75 mi
	Public High School	Vel Phillips Memorial (previously Madison Memorial) High School
Capital High Westside		0.66 mi
Job-Training Facility, Community College, or Continuing Education Programs	UW School of Nursing	3.47 mi
	Edgewood College	3.49 mi
Childcare	Hilde L Mosse Gan Hayeded Preschool	0.11 mi
	Koala T Kare Child Care	0.26 mi
	Cultured Kids West	0.44 mi
	University Houses Preschool Inc	0.53 mi
	Gotitas De Amor Bilingual Child Care	0.59 mi
Public Library	Madison Public Library - Alicia Ashman	1.74 mi
	Madison Public Library - Meadowridge	1.95 mi
Neighborhood or Community Center	Lussier Community Education Center	0.70 mi
	MSCR Odana	0.95 mi
	Lussier Family West YMCA	1.19 mi
	Elver Park Neighborhood Center	1.40 mi
	Theresa Terrace Neighborhood Center	1.48 mi
Full Service Medical Clinic or Hospital	UW Health West Towne Clinic	0.69 mi
	UW Health Odana Road Clinic	0.89 mi
Pharmacy	CVS Pharmacy	0.27 mi
	UW Health West Towne Clinic Pharmacy	0.69 mi
	Walmart Pharmacy	0.96 mi
	Walgreens Pharmacy	1.00 mi
	Walgreens Pharmacy	1.30 mi
Public Park or Hiking/Biking Trail	Nautilus Point Park	0.30 mi
	Mineral Point Park	0.45 mi
	Owen Conservation Park	0.82 mi
	Garner Park	0.85 mi
	Everglade Park	1.05 mi
	Norman Clayton Park	1.05 mi
	Walnut Grove Park	1.12 mi
	Glen Oak Hills Park	1.15 mi
	Bordner Park	1.20 mi
	High Point Park	1.25 mi
	Sherwood Forest Park	1.25 mi
	Haen Family Park	1.28 mi
	Hammersley Park	1.33 mi
	Sunridge Park	1.37 mi
Greentree - Chapel Hills Park	1.38 mi	

	Odana Hills Park Orchard Ridge Valley Park Slater (William) Park Woodland Hills Park	1.47 mi 1.48 mi 1.48 mi 1.50 mi
Banking	Summit Credit Union Great Midwest Bank Wells Fargo Bank US Bank Heartland Credit Union Old National Bank First Business Bank Bankers' Bank Associated Bank BMO Harris Bank	0.11 mi 0.25 mi 0.50 mi 0.50 mi 0.66 mi 0.76 mi 0.78 mi 1.19 mi 1.26 mi 1.30 mi
Retail	Market Square Shopping Center Various Retail Along Odana Road West Towne Mall West Towne Crossing Walmart TJ Max/Five Below/Etc.	0.20 mi 0.34 mi 0.64 mi 0.97 mi 0.97 mi 1.02 mi
Other (list the amenities):	University Research Park Westside Community Market West Transfer Point	0.75 mi 0.75 mi 0.92 mi

29. What is the actual walking distance (in miles) between the proposed site and the nearest seven-day per week transit stops (i.e. weekday and weekends)? List the frequency of service at that bus stop during the weekday at noon. List the bus route(s), major transit stop street intersections and describe any other transit stops (include street intersections and schedule) located near the proposed site. Please do not include full bus schedules. Please refer to [Metro's Adopted Network Redesign](#) and answer based on the best available information at the time of application.

The closest transit stops are Mineral Point & Yellowstone EB (Stop ID: 6129) and WB (Stop ID: 6516) stops located just 0.2 miles down the street from the site (4 minute walk). These stops are served by route A with frequent service between Junction and Watts and East Towne via Mineral Point Road, Sheboygan Avenue, University Avenue, University and Johnson, State Street, Capitol Square, East Washington, Madison College, and East Washington Ave. These stops include both weekday and weekend service with service every 15 minutes during the weekday at noon.

Odana & Potomac WB (Stop ID: 6266) and EB (Stop ID: 6241) stops are also located just 0.3 miles down the street from the site (8 minute walk). These stops are served by route J with service along Tree, Westfield, West Towne Mall, Gammon, Odana, Whitney, Tokay, Midvale, Mineral Point, Speedway, Highland, UW Hospital, University/Johnson, and Brooks. These stops include both weekday and weekend service with service every 30 minutes during the weekday at noon.

S Gammon & Mineral Point NB (Stop ID: 6959) and EB (Stop ID: 6793) stops are also located just 0.6 miles from the site (13 minute walk). Along with route J, these stops are served by route H with service between West Towne Mall and Park and Badger via Gammon, McKenna, Raymond, Reetz, Beltline Frontage, Verona Frontage, Beltline Frontage, Todd, Post, Coho, Greenway Cross, Fish Hatchery, and Badger. Coordinated continuing service to the east is available on Route G. These stops only include weekday service with service every hour during the weekday at noon.

The site is also within 1.5 miles of the West Transfer Point, providing connections to various routes throughout the City.

30. Describe the walking routes for children to get to their elementary and middle schools.

The elementary and middle schools assigned to the address of the site include Muir Elementary and Gillespie Middle. To get to Muir Elementary, students and/or their guardians can take a 15 minute walk right along Yellowstone Drive until they reach the school. They do have to cross the busier Mineral Point Road, but there are stoplights at this intersection. The walk to Gillespie Middle is about a 20 minute walk from the site. After crossing Mineral Point Road, students can continue walking along Yellowstone Drive and take a quieter walk along Mineral Point Park or can continue walking along Mineral Point Road instead and turn along Gammon Road. A great benefit of this site is that these two schools along with the assigned High School, Memorial High, are all within a 20-minute walk from the site, allowing students to easily get to and from school without a vehicle.

31. Describe the [anticipated](#) transit options for people to access employment and amenities such as childcare, after school activities, grocery stores, the nearest library, neighborhood centers, and other amenities described above.

The metro transit routes mentioned above will offer residents easy and quick access to transportation in all directions of the City, allowing residents to easily navigate to employment opportunities, services, and amenities, especially if they do not have their own personal vehicle. Bus routes A, J, and H all have stops within 0.6 miles of the site. Additionally, bus routes A and J have both weekday and weekend service with service every 15 minutes and 30 minutes during the weekday at noon respectively. These routes run west to east across the City from West Towne Mall, through the UW Campus/Downtown area, along East Washington Avenue, and to East Towne mall and beyond, allowing residents to easily access all areas of the City. The West Transfer Point is also within 1.5 miles of the site for further route options. This site will also be located along the future Bus Rapid Transit (BRT) route in the City of Madison, which is why the site is located in a "Preferred Transit Oriented Development Area" on the City of Madison 2023 Affordable Housing Targeted Area Map.

In addition, this site is "Very Walkable" with a Walk Score of 72 and "Bikeable" with a Bike Score of 61. As can be seen from the list of amenities above, many amenities and services are located within 1 mile of the site including grocery stores, childcare, medical centers, and various parks along with various employment opportunities at every income level. The project will also be providing underground parking, but with this location the residents will have a choice of which method they prefer to get around the City of Madison and won't have to rely on a vehicle for a majority of their daily errands in they choose so.

32. Describe the impact this housing development will have on the schools in this area. What percent are the 5-year projected capacities for the area schools (from 2019)? Ideal enrollment is considered 90%. Are the schools projected to be at, above, or below capacity? Approximately how many elementary and middle school children are projected to live at the proposed housing development based on your proposed unit mix and previous housing experience? See 5-year projected capacities in 2019 school capacity information found in this [Report](#) (.pdf pages 30-31).

The schools assigned to this address are Muir Elementary, Gillespie Middle, and Memorial High.

Using the 2019 enrollment data through the link above, the Five Year Projections and Utilization for each of the area schools is listed below.

- Muir Elementary: 427 - 86.2%
- Gillespie (Jefferson) Middle: 518 - 77.1%
- Memorial High: 2,150 - 95.0%

Based on the 2019 report data, Memorial High is the only assigned school with a five year utilization estimated above ideal capacity at 95.0%. Muir Elementary and Gillespie Middle are both underutilized with the five year utilizations estimated at 86.2% and 77.1% respectively.

When we had reached out to Kristian Chavira at the Madison Metropolitan School District on a recent area project, she provided some data from the 2018-2038 Student Enrollment Projections Update report, prepared by Vandewalle & Associates for MMSD. According to this report, large multi-family buildings (3-8 stories) will generate between 0.025 and 0.036 MMSD students per a unit. Based on these predictions, Yellowstone Apartments would be expected to have about 2-3 MMSD students. Given that there are 10 three-bedroom units in this development, there could potentially be larger families at the development who would contribute more students than average. However, since the number of projected students due to the proposed building is so small, 2-3 students, this development is not projected to have a substantive impact on the capacity available at the area schools.

CITY AND COMMUNITY ENGAGEMENT PROCESSES

33. Briefly summarize the staff comments during your Pre-application meeting with City of Madison Planning and Zoning staff. Please include the date.

We met with the City of Madison Planning and Zoning staff regarding this site on both October 25, 2022 and December 19, 2022 prior to submitting our application to WHEDA. Staff comments generally related to open space requirements and density allowed on the site, which were addressed to receive our conditional use approval.

34. Have you presented to the City's Development Assistance Team (DAT)? If so, please summarize the staff comments to your proposal and reference the date of the presentation. If not, what is the anticipated date of the DAT presentation?

Yes, we presented to the City's DAT on January 19, 2023. We addressed all comments in our subsequent land use application for our conditional use approval.

35. Describe the response of the alderperson in which the proposal is located, as well as the adjacent alderperson(s), if within 200 feet of an adjacent Aldermanic District. What issues or concerns with the project did they identify, if any? How will those be addressed? Please note new [Aldermanic Districts](#) went into effect January 1, 2022.

We met with Alder Kristen Slack prior to our neighborhood meeting. Alder Slack encouraged us to consider our parking ratios and energy efficiency strategies. We discussed our process in deriving parking counts based on similar area projects. We also discussed how this project will be built to achieve the Wisconsin Green Built Gold Standard based on our WHEDA application by using various energy efficient/sustainable strategies. We also discussed how we have been using solar on our recent projects when feasible. Overall Alder Slack was supportive of the development and looked forward to learning more and getting neighborhood input.

36. Describe the neighborhood and community input process to date, including notification to and input from the nearby Neighborhood Association(s). What issues or concerns with the project has been identified, if any? How will those be addressed? Describe the plan for continued neighborhood input on the development (e.g. steering committee, survey, informational meetings, project website, etc.).

We held a virtual Zoom neighborhood meeting on April 27, 2023. Similar to Alder Slack, the neighborhood was also supportive of the development overall. Some neighbors raised concerns regarding parking. We discussed our process in deriving parking counts based on similar area projects. We plan to keep Alder Slack updated as the project progresses and address any neighborhood input that comes up.

37. Describe your plans for neighborhood informational meetings and other ways of engaging and informing residents both during construction and approaching lease-up. Describe your experience in working with neighborhood residents post-approval and detail effective strategies you have used since the beginning of the pandemic to effectively communicate with residents.

We will have an open line of communication with Alder Slack and the community both during construction and approaching lease-up to address any neighborhood comments that may arise. We will provide updates as applicable and ensure to let Alder Slack and the neighborhood know when we are commencing lease-up. The virtual neighborhood meetings have been a great way to get the neighborhood involved right off the bat and to create an open dialogue and communication with the Alder/neighborhood that can continue through the duration of the project.

38. Describe how this development will promote both racial and social equity in the community and the greater Madison area. How does this proposal embrace the City's [Racial Equity and Social Justice Initiative](#)? What steps will be taken to ensure goals of this initiative are met on an ongoing basis?

Through developing quality affordable housing in location with great access to transit and services/amenities, Yellowstone Apartments aims to distribute affordable housing throughout the City and promote social sustainability for access to resources, amenities, jobs, and transit within the community. Residents in our supportive housing units will also be connected to supportive services that may be needed.

In addition to our supportive service partners, MSP Real Estate has a signed MOU with Anesis Therapy, a black-owned mental health outpatient clinic, to lease the commercial space on the ground floor. Anesis Therapy's mission

is "Helping people navigate the mental health and wellness aspects of their life in a way that honors culture, family, community, and faith." Anesis Therapy also has a diverse staff that specializes in many areas and can offer services in English, Spanish, and Hmong. Fees charged for services provided will be affordable to persons at or below the 60% income level with a sliding scale fee schedule, which has fees starting at \$5 per visit for the lowest income residents. MSP Real Estate has agreed to lease the facility to Anesis Therapy at well below market rate rents in order to help ensure the Operator can provide services that will help improve the life of community residents and be affordable to individuals whose income is at or below 60% of the area median income. Due to trauma caused by the chronic stress of poverty and the barriers and challenges that poverty can create, many children, youth, and adult participants benefit from a support mechanism provided at a service location where they feel safe, connected, and supported. We feel that this commercial tenant will be a great asset for both residents of the development itself and the community.

MSP Property Management will also perform outreach in accordance with the Affirmative Fair Housing Marketing Plan to populations least likely to apply for housing at the development. MSP Property Management and this development will adhere to local, state, and the federal Fair Housing Law (Title VIII of the Civil Rights Act of 1968, The Fair Housing Amendments Acts of 1988 and Section 504 of the Rehabilitation Act of 1973, all as amended), which stipulates that it is illegal to discriminate against any person on the basis of race, color, creed, religion, sex, national origin, marital status, status with regard to receipt of public assistance, disability, familial status, sexual orientation and gender identity. Each full time employee of MSP Property Management is required to participate in Fair Housing training annually with periodic updates to Fair Housing regulations distributed to all employees for review.

39. Have you or will your development team be willing to provide a meaningful internship, employment opportunity, or development partnership role, to a student or graduate of the Associates in Commercial Real Estate (ACRE) program on this or another project? If so, describe how your development team will address this priority?

MSP is committed providing a meaningful internship opportunity to an ACRE student/graduate or member of the BIPOC community with MSP Companies in the Summer of 2025. The intern will have an opportunity to work with and gain insight on all aspects of the real estate process including development, construction, and property management. The student or grad would be on the team during the most critical time for the project as construction is closed and the project is leased up. The ACRE student/graduate or member of the BIPOC community would also have the chance to work with multiple projects and properties under MSP Companies. The exposure to multiple aspects of the real estate process and multiple properties would be a great opportunity for an ACRE student/graduate or a member of the BIPOC community to gain experience the real estate industry and gain insight on multiple aspects and routes within the real estate field. As part of the internship experience, we will work to facilitate job shadow opportunities with our architect and a lender.

SITE AMENITIES

40. Describe the exterior amenities that will be available to tenants and guests (e.g., tot lot or play structure, outdoor exercise equipment, patio, permanent tables and chairs, greenspace, grill area, gardens, etc.).

Yellowstone Apartments exterior amenities will include private balconies/patios for each unit, a community room terrace, an outdoor courtyard, and a tot lot.

41. Describe the interior common area amenities that will be available to tenants and/or guests (e.g., community rooms, exercise room, business center, etc.). For family developments, will there be a year-round indoor play space &/or youth lounge for children and teens?

Interior common amenities will include a top floor community room, fitness center, indoor play room for kids, tenant storage, and an on-site property manager that will have a leasing office to assist residents at the property. Underground parking will be provided at an additional cost of approximately \$75/stall/month. Parking stalls provided will be in accordance with the City requirements.

42. What is the anticipated number of total number parking spots, both underground and surface, that will be provided to tenants of the development? What is the ratio to units? What is the associated monthly cost? Will the parking cost in this development vary by CMI level?

It is anticipated that the project will have 40 parking stalls with approximately 33 underground parking stalls and 7 surface stalls. This makes for a 0.67:1 ratio of parking stalls to units. The surface parking stalls will be free. Underground parking is estimated to be \$75/stall/month for all tenants.

43. For proposals contemplating first floor commercial space, describe how the use and/or tenant of the space will be a benefit to the immediate neighborhood (e.g. childcare, senior center, community facility, neighborhood-serving commercial etc.). Explain how the use of the space was identified to fill a service gap or enhance the surrounding community. Describe if a prospective tenant or use has already been identified or how a prospective tenant will be found and will help inform the space's design.

MSP Real Estate has a signed MOU with Anesis Therapy, a black-owned mental health outpatient clinic, to lease the approximately 650 sf commercial space on the ground floor. Anesis Therapy's mission is "Helping people navigate the mental health and wellness aspects of their life in a way that honors culture, family, community, and faith." Services offered include mental health, substance abuse, and case management services to individuals, couples, families, children, and adolescents. Anesis Therapy also has a diverse staff that specializes in many areas and can offer services in English, Spanish, and Hmong.

Fees charged for services provided will be affordable to persons at or below the 60% income level with a sliding scale fee schedule, which has fees starting at \$5 per visit for the lowest income residents. In addition to these discounted rates and quality service, clients are entitled to financial counseling by someone who can understand and offer possible solutions for those who cannot pay in full. The Patient Account Representative's role is that of a patient advocate who works with the patient and or/guarantor to find reasonable payment alternates.

MSP Real Estate has agreed to lease the facility to Anesis Therapy at well below market rate rents in order to help ensure the Operator can provide services that will help improve the life of community residents and be affordable to individuals whose income is at or below 60% of the area median income. The project is subsidizing the rent paid by Anesis Therapy for the commercial space by approximately \$10,000-\$15,000 per year.

Anesis Therapy has also assisted in informing the space's design. With the Operator's input from our previous project, The Heights Apartments, the layout of the space is intended to have three offices, a waiting area, and a small storage area with kitchenette.

The Market Study for Yellowstone Apartments notes that "considering the health and demographic data we have provided above, we believe the subject's location is well-situated within an area that is in need of a Community Service Facility providing mental health, substance abuse, and case management services." Due to trauma caused by the chronic stress of poverty and the barriers and challenges that poverty can create, many children, youth, and adult participants benefit from a support mechanism provided at a service location where they feel safe, connected, and supported.

44. Describe the interior apartment amenities, including plans for internet service (and cost to tenants, if any) and a non-smoking indoor environment throughout the building.

The units will feature vinyl plank flooring in the kitchen and living room with carpet in the bedrooms. Each unit will have its own washer and dryer. All units will include a stainless steel refrigerator, dishwasher, range, and microwave. The building will offer free basic internet connection to all residents. There will be no smoking in the building. There will be no difference between the LIHTC and market rate units.

PROPOSAL TIMELINE

45. Please list the estimated/target completion dates associated with the following activities/benchmarks to illustrate the timeline of how your proposal will be implemented.

Activity/Benchmark	Estimated Month/Year of Completion
Draft Site Plan Ready to Submit to Dev. Assistance Team (DAT) [<i>Target/Actual Month/Date</i>]	Complete
1 st Development Assistance Team/ Meeting (Due by 9/14/23) [<i>Target/Actual Month/Date</i>]	Complete
1 st Neighborhood Meeting (Due by 9/14/23) [<i>Target Month/Date</i>]	Complete
Submission of Land Use Application (Zoning Map Amendments Due by 10/16/23)	Complete
Submission of Land Use Application (Permissively Zoned Due by 11/27/23)	Complete
Plan Commission Consideration (If Rezoning, 11/27/23 Meeting for 12/5/23 Common Council)	Complete
Urban Design Commission Consideration, if applicable [<i>Target Month/Date</i>]	Complete
Application to WHEDA	Complete - 01/2023
Complete Equity & Debt Financing	12/2023
Acquisition/Real Estate Closing	12/2023
Rehab or New Construction Bid Publishing	11/2023
New Construction/Rehab Start	02/2024
Begin Lease-Up/Marketing	02/2025
New Construction/Rehab Completion	07/2025
Certificates(s) of Occupancy Obtained	07/2025
Complete Lease-Up	12/2025
Request Final AHF Draw	08/2025

HOUSING INFORMATION & UNIT MIX

46. Provide the following information for your proposed project. List the property address along with the number of units you are proposing by size, income category, etc. If this is a scattered site proposal, list each address separately with the number of units you are proposing by income category, size, and rent for that particular address and/or phase. Attach additional pages if needed.

ADDRESS #1:		426 South Yellowstone Drive, Madison, WI 53719									
		# of Bedrooms					Projected Monthly Unit Rents, Including Utilities				
% of County Median Income (CMI)	Total # of units	# of Studios	# of 1 BRs	# of 2 BRs	# of 3 BRs	# of 4+ BRs	\$ Rent for Studios	\$ Rent for 1 BRs	\$ Rent for 2 BRs	\$ Rent for 3 BRs	\$ Rent for 4+ BRs
≤30%	12	0	8	2	2	0		687	824	952	
40%	0	0	0	0	0	0					
50%	24	0	8	9	7	0		1145	1373	1587	
60%	15	0	2	12	1	0		1175	1409	1629	
Affordable Sub-total	51	0	18	23	10	0					
80%	0	0	0	0	0	0					
Market*	9	0	2	7	0	0		1350	1790		
Total Units	60	0	20	30	10	0	Notes/Utility Allowance Assumptions:				

*40% = 31-40% CMI; 50% = 41-50% CMI; 60% = 51-60% CMI; 80% = 61-80% CMI; Market = >81% CMI.

ADDRESS #2:											
		# of Bedrooms					Projected Monthly Unit Rents, Including Utilities				
% of County Median Income (CMI)	Total # of units	# of Studios	# of 1 BRs	# of 2 BRs	# of 3 BRs	# of 4+ BRs	\$ Rent for Studios	\$ Rent for 1 BRs	\$ Rent for 2 BRs	\$ Rent for 3 BRs	\$ Rent for 4+ BRs
≤30%	0	0	0	0	0	0					
40%	0	0	0	0	0	0					
50%	0	0	0	0	0	0					
60%	0	0	0	0	0	0					
Affordable Sub-total	0	0	0	0	0	0					
80%	0	0	0	0	0	0					
Market*	0	0	0	0	0	0					
Total Units	0	0	0	0	0	0	Notes/Utility Allowance Assumptions:				

*40% = 31-40% CMI; 50% = 41-50% CMI; 60% = 51-60% CMI; 80% = 61-80% CMI; Market = >81% CMI.

NOTE: For proposals contemplating project-based vouchers (PBVs), please list vouchered units under the same CMI designation that you will be representing to WHEDA (e.g. if the LIHTC application to WHEDA presents 8 PBV units as 50% CMI or 60% CMI units, please include those on the “50%” or “60%” row in the above table(s)). The City of Madison will enforce this income designation in the AHF Loan Agreement, if this proposal is awarded funds. Include a comment in the Notes, e.g., Eight (8) 50% CMI units will have PBVs.

47. Utilities/amenities included in rent: Water/Sewer Electric Gas Free Internet In-Unit

Washer/Dryer Other: _____

48. Please list the source of calculating your utility allowance, and the total utility allowance per bedroom size:
 Utilities Allowance Used: CDA DCHA HUSM (HUD HOME)

Unit Size (Number of Bedrooms)	Total Monthly Utility Allowance (\$)
Efficiency	N/A
1-Bedroom	\$106
2-Bedroom	\$126
3-Bedroom	\$147

49. Describe this development’s approach to accessibility, including the number and percent of accessible units proposed for each of level of accessibility (i.e. Type A and B units). Elaborate on this development’s plan to meet or exceed WHEDA’s minimum requirements as well as exceeding building code standards for Type A units. For rehab, describe the accessibility modifications that will be incorporated into the existing development.

We plan on meeting WHEDA code and requirements for accessibility. After completing many recent affordable housing developments where we have met WHEDA and code requirements for accessibility, we have not had a difficulty meeting accessibility needs presented by our tenants.

If the City requests additional enhanced accessibility similar to The Heights, we will incorporate this additional enhanced accessibility in a similar fashion to the enhanced accessibility committed to on The Heights.

50. Describe this development’s level of commitment to the principles of Universal Design. Explain the extent to which the development team will incorporate the greatest feasible levels of Universal Design in residential units, commercial spaces, and common areas in accordance with the requirements outlined in the RFP. What percentage or number of units in the proposed development will incorporate Universal Design principles?

See above, we will follow the Universal Design requirements set by WHEDA.

ENERGY EFFICIENCY, RENEWABLE ENERGY, DECARBONIZATION & SUSTAINABLE DESIGN

51. Describe your organization’s experience developing projects that incorporate extraordinary sustainability, energy efficiency, decarbonization/electrification, and/or green building design? Please list any awards, industry standards or third-party certifications achieved on projects developed in the past ten years, such as LEED®, WELL, ENERGY STAR, Passive House, etc.

Our previous WHEDA developments have received Wisconsin Green Built Verification or Certification in order to receive the maximum points under WHEDA's Energy and Efficiency scoring category. Yellowstone Apartments will go beyond our previous WHEDA projects to receive the Wisconsin Green Built Gold Standard. This is a higher certification added this year in relation to WHEDA's 2023 QAP. Rather than 200 points, Yellowstone Apartments will score 240 points under the Wisconsin Green Built checklist to achieve the Gold Standard. Yellowstone Apartments will also need to achieve the ENERGY STAR Multifamily New Construction certification as part of receiving Wisconsin Green Built Gold Standard Certification.

MSP has also implemented solar arrays on some of our more recent affordable housing projects. River Parkway in Wauwatosa was completed in August 2021 including an approximately 127 kW solar array. Taylor Pointe Apartments in McFarland was completed in February 2022 including an approximately 26 kW solar array. The Oscar Apartments in Madison was completed in July 2022 and includes a solar array on each of the two buildings at approximately 53 kW and 41 kW each. The Heights Apartments is another project currently under construction in Madison where we are including an approximately 30kW solar array.

52. Describe how the proposed development will contribute to the City’s goal of reaching 100% renewable energy and net-zero carbon emissions community-wide by 2050. What size/range of solar array is anticipated? If not yet known, what percentage of on-site electricity use is the development aiming to provide via the solar array. Please describe

any other renewable energy systems to be included in the development, such as solar thermal, solar hot water, geothermal, etc.

As mentioned above, Yellowstone Apartments will achieve Wisconsin Green Built Gold Standard certification by incorporating various sustainable, energy efficient, and/or green building design techniques to score at least 240 points under the Wisconsin Green Built Scoring Checklist. Some of the green features that this project plans to feature include a highly efficient building envelope, windows with a U value of 0.35 or less, high efficiency furnace (95% or higher) and boiler (92% or higher), high efficiency air conditioner or heat pump, low flow showerheads and faucets, all ENERGY STAR qualified appliances, and ENERGY STAR qualified light fixtures. These efficiencies will give the residents savings on their gas and electricity bills along with a significant savings to the project for common area utilities including water/sewer, gas, and electricity. Also mentioned above, Yellowstone Apartments will also need to achieve the ENERGY STAR Multifamily New Construction certification as part of receiving the Wisconsin Green Built Gold Standard Certification.

MSP is anticipating installing a 30kW solar array on this project. On previous projects, we have tried to size the solar array to offset the common area energy usage. We will attempt to do the same here dependent on what size array is feasible with the budget.

Another feature that contributes to the green features of this project is site location itself. As the proposed project has good access to transit and is in close proximity to many amenities and services as mentioned above, the location diminishes reliance on cars and encourages walking, biking, and use of City transit. Located in a "Preferred Transit Oriented Development Area," the project location will also be on the future Bus Rapid Transit (BRT) route. Not only is this a benefit for the residents to lower transportation costs, but it is also a benefit for the City's goal of achieving zero net carbon emissions. Yellowstone Apartments will also comply with the City's bike parking and EV requirements in place to help achieve this goal.

The energy efficiency strategies mentioned above will reduce overall energy consumption of the project to help cut down net carbon emissions in reaching the City's goal. The location of the project site itself would lessen residents reliance on personal vehicles for transportation, reducing potential carbon emissions. In close proximity to transit, the project would also allow residents to take advantage of the City's transit system, especially as the City aims to reduce fuel consumption in the City fleet and switch out to electric busses, allowing the development to further the efforts of City strategies toward this goal. We are also working with Focus on Energy in determining if there are other feasible solutions to help reduce the project's carbon footprint.

53. Describe the proposed development's energy efficiency goals. Attach a copy of the confirmation page demonstrating that your organization has submitted an [Initial Application](#) for Focus on Energy's Energy Design Assistance program. Identify any third party certification, such as LEED®, WELL, ENERGY STAR, Passive House or similar, that will be sought.

We have submitted an application to Focus on Energy's Design Assistance program and plan to "incorporate a minimum of 20% of projected Energy Use Intensity (EUI) savings calculated over the baseline energy code." Through working with Focus on Energy, we will also look into incorporating a higher level of energy efficiency strategies if feasible.

See Section 4 for confirmation of application submittal & acceptance to Focus on Energy's Design Assistance program.

As mentioned above, Yellowstone Apartments will achieve Wisconsin Green Built Gold Standard certification by incorporating various sustainable, energy efficient, and/or green building design techniques to score at least 240 points under the Wisconsin Green Built Scoring checklist. Some of the green features that this project plans to include are a highly efficient building envelope, windows with a U value of 0.35 or less, high efficiency furnace (95% or higher) and boiler (92% or higher), high efficiency air conditioner or heat pump, low flow showerheads and faucets, all ENERGY STAR qualified appliances, and ENERGY STAR qualified light fixtures. Yellowstone Apartments will also need to achieve the ENERGY STAR Multifamily New Construction certification as part of receiving Wisconsin Green Built Gold Standard Certification.

54. Please describe all design and equipment choices to reduce fossil fuel consumption and help achieve decarbonization, such as air-source or ground-source heat pumps, electric or heat-pump water heaters, electric stoves, EV charging infrastructure, battery storage, etc.

In alignment with with achieving the Wisconsin Green Built Gold and ENERGY STAR Multifamily Certifications, the building will have a highly efficient shell/building envelope, windows with a U value of 0.35 or less, and ENERGY STAR qualified appliances and light fixtures. We also thoroughly review unit plans and building plans to ensure efficient use of space and use durable, high-quality materials both indoors and outdoors to make the project more efficient in the long run. Along with a highly efficient shell, we also provide fans in all bedrooms along and window control to give residents more power in controlling thermal comfort that doesn't solely rely on the building's heating/cooling system. As far as lighting, large windows and patio doors are provided in each unit along with the use of light paint colors to bring lots of natural light in the units. Electric ranges are also provided in each unit. This project will include at least the minimum 30 kW of solar along with EV charging infrastructure and bike parking per City requirements.

55. Describe this development’s proposed strategies to reduce reliance on municipal water sources (i.e. water efficiency). Will the development incorporate systems to recapture and/or reuse water on-site?

Efficient showerheads and faucets will be required to be installed in all units of the project. Showerheads installed must be low flow showerheads with 1.75 gpm or less. Faucet aerators (both kitchen & bathroom) installed must have a rating of 1.5 gpm or less.

REAL ESTATE PROJECT DATA SUMMARY

56. Enter the site address (or addresses if scattered sites) of the proposed housing and answer the questions listed below for each site.

	# of Units Prior to Purchase	# of Units Post-Project	# Units Occupied at Time of Purchase	# Biz or Residential Tenants to be Displaced	# of Units Accessible Current?	Number of Units Post-Project Accessible?	Appraised Value Current (Or Estimated)	Appraised Value After Project Completion (Or Estimated)	Purchase Price
Address:	426 South Yellowstone Drive, Madison, WI 53719								
	0	60	0	1	0	2	N/A	N/A	\$1,500,000
Address:	Enter Address 2								
Address:	Enter Address 3								

57. For proposals that include rehabilitation, have you completed a capital needs assessment for this property? If so, summarize the scope and cost; Attach a copy of the capital needs assessment.

N/A - New Construction

58. Identify any existing buildings on the proposed site, noting any that are currently occupied. Describe the planned demolition of any buildings on the site.

There is currently an office building onsite that is planned to be demolished. The current owner of this building is also the occupant. The current owner, Evident Change, is a non-profit where essentially now all of the employees are working remote. They are selling this building in order to downsize into a smaller office. They are planning to relocate prior to closing.

Demolition of the building would be expected once all of the funding sources for this application have been awarded. Demolition is not expected to occur until after January 2024

59. Will any business or residential tenants will be displaced temporarily or permanently? If so, please describe the relocation requirements, relocation plan and relocation assistance that you will implement or have started to implement.

There is currently an office building onsite that is planned to be demolished. The current owner of this building is also the occupant. The current owner, Evident Change, is a non-profit where essentially now all of the employees are working remote. They are selling this building in order to downsize into a smaller office. They are planning to relocate prior to closing. As such, there is no displacement and no relocation requirements needed.

DEVELOPMENT TEAM

60. For applicants applying under the HOME-ARP set-aside, please describe the development team’s experience using federal HOME funds in detail, including a list of projects the team has developed using such funds. Please enter N/A if this question does not apply.

N/A

61. Describe the project’s organizational structure. Please attach an organizational chart detailing the roles of the applicant, all partners, and the ownership and controlling interest percentages of each entity.

The property will be an LLC (Yellowstone Apartments, LLC) with MSP Real Estate, Inc. or its assigns having a 49% ownership interest in the managing member entity. Our non-profit partner, Midwest Housing Collaborative, Inc., will have a 51% ownership interest in the managing member entity.

The managing member entity will have a 0.01% ownership interest in the overall property LLC and the limited partner will have a 99.99% ownership interest in the overall property LLC. The limited partner will be owned 100% by the equity investor who will be purchasing the LIHTC. The equity investor has not been determined at this time.

MSP Real Estate, the Developer, will assign land rights to Yellowstone Apartments, LLC or other to be named LLC for Yellowstone Apartments.

See Section 2A.7 for the complete organizational chart.

62. For projects that will be co-developed with a non-profit partner, please explain the non-profit’s role in the development. State if the non-profit will have a controlling interest (as memorialized in organizational documents), Right of First Refusal, or General Partner Purchase Option. If not, please elaborate on how the non-profit organization will be involved in the long-term ownership of the development.

A non-profit entity, Midwest Housing Collaborative, Inc. (MHC), will have a 51% ownership interest in the managing member. MSP Real Estate, Inc. or its assigns will have a 49% ownership interest in the managing member. While the structure of this deal does not lend itself to granting our non-profit partner a controlling interest, Right of First Refusal, or General Partner Purchase Option, MSP hereby agrees to provide the City with notice of intent to sell consistent with our past deals with the City.

63. For projects that will be co-developed with a BIPOC or minority developer, please explain the BIPOC or minority developer role in the development. State what percentage stake the BIPOC or minority developer will have in the development, cash flow, etc. (as memorialized in organizational documents). If the development team will partner with a BIPOC or minority developer but will not provide a stake in the organization structure, please explain this decision and elaborate on how the BIPOC or minority developer will be involved in the long-term ownership of the development.

N/A

64. Identify all key roles in your project development team, including architect, general contractor, legal counsel, property management agent, supportive services provider(s), and any other key consultants, if known.

Contact Person	Company	Role in Development	E-mail	Phone
Jerry Bourquin	Dimension IV Madison Design Group	Architect	jbourquin@dimensionivmadison.com	608-829-4452
Katie Rist	Foley & Lardner	Attorney	krist@foley.com	608-258-4317
Brian Martin	MSP Property Management	Property Management	bmartin@msphousing.com	608-831-7004
Glen Weyenburg	SVA	Consultant/Accountant	weyenbergg@sva.com	608-826-2005
Ben Shearer	MSP Construction	General Contractor	bshearer@msphousing.com	414-208-8745
Mark Hammond	MSP Real Estate	VP of Development	mhammond@msphousing.com	612-868-9997
Melissa Sorensen	The Salvation Army of Dane County	Supportive Services Partner	melissa.sorensen@usc.salvationarmy.org	608-250-2237
Bridgette Nelson	Dane County Veterans Service Office	Supportive Services Partner	nelson.bridgette@countyofdane.com	608-266-4158
Myra McNair	Anesis Therapy	Commercial Space Tenant	myra@anesistherapy.com	608-268-6530

65. For the following development team roles, please identify the number and/or percentage of women and persons of color employed by that company.

Company	Role in Development	BIPOC		Women	
		#	%	#	%
MSP Real Estate	Developer	0	0%	0	0%
	Co-Developer				
	Co-Developer				
MSP Construction	General Contractor	0	0%	1	25%
MSP Property Management	Property Manager	1	13%	7	88%
Dimension IV Madison Design Group	Architect	5	19%	12	46%
TSA	Service Provider	28	46%	43	72%
CVSO		2	25%	5	62%
Anesis Therapy		58	90%	45	74%

66. Will the development team commit to making annual payments on the AHF Cash Flow Note concurrently with repayment of the deferred developer fee? If yes, explain how this will be memorialized in organizational documents, including the final Amended and Restated Operating Agreement.

Yes, as long as we can make annual payments on the AHF Cash Flow Note and repay the deferred developer fee within 7 years.

REFERENCES

67. Please list at least three municipal/financing references who can speak to your work on similar developments completed by your team.

Name	Relationship	Email Address	Phone
Josh Resch	Banking	joshresch@landmarkcu.com	608-888-5830
Kevin Kilbane	Tax Credit Equity	kevin.kilbane@raymondjames.com	216-509-1342
Paulette Enders	Community Development	penders@wauwatosa.net	414-479-3531

PLEASE ATTACH THE FOLLOWING ADDITIONAL INFORMATION (such as assessment and referral, on-site intensive case management, etc.) **AND CHECK THE BOX WHEN ATTACHED:**

- 1. A completed Application Budget Workbook, showing the City's proposed financial contribution and all other proposed financing.
- 2. Description of the Development Team's Experience and Capacity per Section 2.4, Item 2 of the RFP.
- 3.a. Letter(s) from Supportive Service Provider(s) detailing what services are necessary to be adequate for the number of supportive housing units and target population as well as what level of services they intend to provide.
- 3.b. A detailed map of the site and a second map using the AHF Affordable Housing Targeted Area Map showing the site in the context of the City.
- 3.c. A preliminary site plan and drawings, if available.
- 3.d. A Capital Needs Assessment report of the subject property, if the proposal is for a rehabilitation project and if the report is available at the time of application.
- 4. A confirmation page demonstrating that an Initial Application for Energy Design Assistance was submitted to Focus on Energy
- 5. Written confirmation from the Zoning Administrator of permissive zoning or a letter confirming the proposed site's zoning status and process.

NOTE: If a preliminary site plan is not available at the time of application, submittal will be required for DAT on September 14, 2023 with submittal with week prior. If the Capital Needs Assessment is not available at the time of application for a rehab project, submittal will be required by September 15, 2023.

Section 1B – Affirmative Fair Housing Marketing Plan the official HUD software for the creation of HUD forms.

HUD has made available instructions for downloading a free installation of a Nuance reader that allows the user to fill-in and save this form in Nuance. Please see <http://portal.hud.gov/hudportal/documents/huddoc?id=nuancereaderinstall.pdf> for the instructions. Using Nuance software is the only means of completing this form.

Affirmative Fair Housing Marketing Plan (AFHMP) - Multifamily Housing

**U.S. Department of Housing and Urban Development
Office of Fair Housing and Equal Opportunity**

OMB Approval No. 2529-// 02
(exp.0/31/2021)

1a. Project Name & Address (including City, County, State & Zip Code)

Project Name: Yellowstone Apartments
Project Address: 426 S Yellowstone Drive, Madison, WI 53719

1b. Project Contract Number

1c. No. of Units

60

1d. Census Tract

4.08

1e. Housing/Expanded Housing Market Area

Housing Market Area: Madison, WI
Expanded Housing Market Area: Dane County, WI

1f. Managing Agent Name, Address (including City, County, State & Zip Code), Telephone Number & Email Address

MSP Property Management, LLC (Contact: Brian Martin, Telephone #: 608-359-9493, Email: bmartin@msphousing.com)
1295 Northland Drive, Suite 270, Mendota Heights, MN 55120

1g. Application/Owner/Developer Name, Address (including City, County, State & Zip Code), Telephone Number & Email Address

To Be Named, LLC (Contact: Mark Hammond, Telephone #: 912-868-9997, Email: mhammond@msphousing.com)
1295 Northland Drive, Suite 270, Mendota Heights, MN 55120

1h. Entity Responsible for Marketing (check all that apply)

Owner Agent Other (specify) _____

Position, Name (if known), Address (including City, County, State & Zip Code), Telephone Number & Email Address

Property Manager (to be hired closer to opening) - 426 S Yellowstone Drive, Madison, WI 53719.

1i. To whom should approval and other correspondence concerning this AFHMP be sent? Indicate Name, Address (including City, State & Zip Code), Telephone Number & E-Mail Address.

Brian Martin (VP of Asset Management) - Telephone #: 608-359-9493, Email: bmartin@msphousing.com
1295 Northland Drive, Suite 270, Mendota Heights, MN 55120

2a. Affirmative Fair Housing Marketing Plan

Plan Type Date of the First Approved AFHMP:

Reason(s) for current update:

2b. HUD-Approved Occupancy of the Project (check all that apply)

Elderly Family Mixed (Elderly/Disabled) Disabled

2c. Date of Initial Occupancy

2d. Advertising Start Date

Advertising must begin *at least* 90 days prior to initial or renewed occupancy for new construction and substantial rehabilitation projects.

Date advertising began or will begin

For existing projects, select below the reason advertising will be used:

- To fill existing unit vacancies
- To place applicants on a waiting list (which currently has individuals)
- To reopen closed waiting list (which currently has individuals)

3a. Demographics of Project and Housing Market Area

Complete and submit Worksheet 1.

3b. Targeted Marketing Activity

Based on your completed Worksheet 1, indicate which demographic group(s) in the housing market area is/are *least* likely to apply for the housing without special outreach efforts. (check all that apply)

- White
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- Hispanic or Latino
- Persons with Disabilities
- Families with Children
- Other ethnic group, religion, etc. (specify) Veterans, Homeless/Nearly Homeless

4a. Residency Preference

Is the owner requesting a residency preference? If yes, complete questions 1 through 5. No
If no, proceed to Block 4b.

(1) Type Please Select Type

(2) Is the residency preference area:
The same as the AFHMP housing/expanded housing market area as indicated in Block 1e? Please Select Yes or No

The same as the residency preference area of the local PHA in whose jurisdiction the project is located? Please Select Yes or No

(3) What is the geographic area for the residency preference?

(4) What is the reason for having a residency preference?

(5) How do you plan to periodically evaluate your residency preference to ensure that it is in accordance with the non-discrimination and equal opportunity requirements in 24 CFR 5.105(a)?

Complete and submit Worksheet 2 when requesting a residency preference (see also 24 CFR 5.655(c)(1)) for residency preference requirements. The requirements in 24 CFR 5.655(c)(1) will be used by HUD as guidelines for evaluating residency preferences consistent with the applicable HUD program requirements. See also HUD Occupancy Handbook (4350.3) Chapter 4, Section 4.6 for additional guidance on preferences.

4b. Proposed Marketing Activities: Community Contacts

Complete and submit Worksheet 3 to describe your use of community contacts to market the project to those least likely to apply.

4c. Proposed Marketing Activities: Methods of Advertising

Complete and submit Worksheet 4 to describe your proposed methods of advertising that will be used to market to those least likely to apply. Attach copies of advertisements, radio and television scripts, Internet advertisements, websites, and brochures, etc.

5a. Fair Housing Poster

The Fair Housing Poster must be prominently displayed in all offices in which sale or rental activity takes place (24 CFR 200.620(e)). Check below all locations where the Poster will be displayed.

Rental Office Real Estate Office Model Unit Other (specify)

5b. Affirmative Fair Housing Marketing Plan

The AFHMP must be available for public inspection at the sales or rental office (24 CFR 200.625). Check below all locations where the AFHMP will be made available.

Rental Office Real Estate Office Model Unit Other (specify)

5c. Project Site Sign

Project Site Signs, if any, must display in a conspicuous position the HUD approved Equal Housing Opportunity logo, slogan, or statement (24 CFR 200.620(f)). Check below all locations where the Project Site Sign will be displayed.

Rental Office Real Estate Office Model Unit Entrance to Project Other (specify)

The size of the Project Site Sign will be x

The Equal Housing Opportunity logo or slogan or statement will be x

6. Evaluation of Marketing Activities

Explain the evaluation process you will use to determine whether your marketing activities have been successful in attracting individuals least likely to apply, how often you will make this determination, and how you will make decisions about future marketing based on the evaluation process.

The project population and applicants will be evaluated at least annually to determine whether the target populations listed appear to be responding to our marketing efforts. The on-site manager will be the party responsible for conducting this evaluation and will report the findings to the Vice President of MSP Property Management. The evaluation will be conducted at year end. Once the findings are finalized, management will focus on other outreach efforts to get better responses from the target populations that did not apply.

7a. Marketing Staff

What staff positions are/will be responsible for affirmative marketing?

Property Manager

7b. Staff Training and Assessment: AFHMP

- (1) Has staff been trained on the AFHMP?
- (2) Has staff been instructed in writing and orally on non-discrimination and fair housing policies as required by 24 CFR 200.620(c)?
- (3) If yes, who provides instruction regarding the use of the AFHMP and the requirements of the Fair Housing Act?

The instructions on the AFHMP and Fair Housing Act will be provided through Grace Hill Training.

- (4) Do you periodically assess staff skills regarding use of the AFHMP and the requirements of the Fair Housing Act?
- (4) If yes, how and how often?

Fair Housing refresher training is required annually.

7c. Tenant Selection Training/Staff

- (1) Has staff been trained on tenant selection in accordance with the project's occupancy policy, including any residency preferences?
- (2) What staff positions are/will be responsible for tenant selection?

Property Manager

7d. Staff Instruction/Training:

Describe AFHM/Fair Housing Act staff training, already provided or to be provided, to whom it was/will be provided, content of training, and the dates of past and anticipated training. Please include copies of any AFHM/Fair Housing staff training materials.

- 1. Each full time employee of MSP Property Management is required to participate in Fair Housing training annually. The training will be completed through Grace Hill.
- 2. Periodic updates to Fair Housing regulations are distributed to all employees for review.
- 3. All MSP Property Management employees are required to adhere to Fair Housing issues as directed in our standards of conduct. Failure to do so will result in disciplinary action.
- 4. Each new employee of MSP Property Management is required to complete different aspects of training, including Fair Housing.

8. Additional Considerations Is there anything else you would like to tell us about your AFHMP to help ensure that your program is marketed to those least likely to apply for housing in your project? Please attach additional sheets, as needed.

As mentioned, each full time employee of MSP Property Management is required to participate in Fair Housing training annually. Periodic updates to Fair Housing regulations will be distributed to all employees for review. All MSP Property Management employees are required to adhere to Fair Housing issues as directed in our standards of conduct. Each new employee of MSP Property Management is required to complete different aspects of training, including Fair Housing.

9. Review and Update

By signing this form, the applicant/respondent agrees to hold its AFHMP+` mc en qtdv ` mc t oc` sd l@EGL O hm` bbnq` nbd v lq qd hm sq bdmr en hdl 8 nesgr end in order to ensure continued compliance with HUD's Affirmative Fair Housing Marketing Regulations (see 24 CFR Part 200, Subpart M). I hereby certify that all the information stated herein, as well as any information provided in the accompaniment herewith, is true and accurate. Warning: HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (See 18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802).

Signature of person submitting this Plan & Date of Submission (mm/dd/yyyy)



11/29/2022

Name (type or print)

Brian Martin

Title & Name of Company

Vice President of Asset Management, MSP Property Management

For HUD-Office of Housing Use Only

Reviewing Official:

For HUD-Office of Fair Housing and Equal Opportunity Use Only

Approval

Disapproval

Signature & Date (mm/dd/yyyy)

Signature & Date (mm/dd/yyyy)

Name (type or print)

Title

Name (type or print)

Title

Public reporting burden for this collection of information is estimated to average six (6) hours per initial response, and four (4) hours for updated plans, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid Office of Management and Budget (OMB) control number.

Purpose of Form: All applicants for participation in FHA subsidized and unsubsidized multifamily housing programs with five or more units (see 24 CFR 200.615) must complete this Affirmative Fair Housing Marketing Plan (AFHMP) form as specified in 24 CFR 200.625, and in accordance with the requirements in 24 CFR 200.620. The purpose of this AFHMP is to help applicants offer equal housing opportunities regardless of race, color, national origin, religion, sex, familial status, or disability. The AFHMP helps owners/agents (respondents) effectively market the availability of housing opportunities to individuals of both minority and non-minority groups that are least likely to apply for occupancy. Affirmative fair housing marketing and planning should be part of all new construction, substantial rehabilitation, and existing project marketing and advertising activities.

An AFHM program, as specified in this Plan, shall be in effect for each multifamily project throughout the life of the mortgage (24 CFR 200.620(a)). The AFHMP, once approved by HUD, must be made available for public inspection at the sales or rental offices of the respondent (24 CFR 200.625) and may not be revised without HUD approval. This form contains no questions of a confidential nature.

Applicability: The form and worksheets must be completed and submitted by all FHA subsidized and unsubsidized multifamily housing program applicants.

INSTRUCTIONS:

Send completed form and worksheets to your local HUD Office, Attention: Director, Office of Housing

Part 1: Applicant/Respondent and Project

Identification. Blocks 1a, 1b, 1c, 1g, 1h, and 1i are self-explanatory.

Block 1d- Respondents may obtain the Census tract number from the U.S. Census Bureau (<http://factfinder2.census.gov/main.html>) when completing Worksheet One.

Block 1e- Respondents should identify both the housing market area and the expanded housing market area for their multifamily housing projects. Use abbreviations if necessary. A **housing market area** is the area from which a multifamily housing project owner/agent may reasonably expect to draw a substantial number of its tenants. This could be a county or Metropolitan Division. The U.S. Census Bureau provides a range of levels to draw from.

An **expanded housing market area** is a larger geographic area, such as a Metropolitan Division or a Metropolitan Statistical Area, which may provide additional demographic diversity in terms of race, color, national origin, religion, sex, familial status, or disability.

Block 1f- The applicant should complete this block only if a Managing Agent (the agent cannot be the applicant) is implementing the AFHMP.

Part 2: Type of AFHMP

Block 2a- Respondents should indicate the status of the AFHMP, i.e., initial or updated, as well as the date of the first approved AFHMP. Respondents should also provide the reason (s) for the current update, whether the update is based on the five-year review or due to significant changes in project or local demographics (See instructions for Part 9).

Block 2b- Respondents should identify all groups HUD has approved for occupancy in the subject project, in accordance with the contract, grant, etc.

Block 2c- Respondents should specify the date the project was/will be first occupied.

Block 2d- For new construction and substantial rehabilitation projects, advertising must begin at least 90 days prior to initial occupancy. In the case of existing projects, respondents should indicate whether the advertising will be used to fill existing vacancies, to place individuals on the project's waiting list, or to re-open a closed waiting list. Please indicate how many people are on the waiting list when advertising begins.

Part 3 Demographics and Marketing Area.

"Least likely to apply" means that there is an identifiable presence of a specific demographic group in the housing market area, but members of that group are not likely to apply for the housing without targeted outreach, including marketing materials in other languages for limited English proficient individuals, and alternative formats for persons with disabilities. Reasons for not applying may include, but are not limited to, insufficient information about housing opportunities, language barriers, or transportation impediments.

Block 3a - Using Worksheet 1, the respondent should indicate the demographic composition of the project's residents, current project applicant data, census tract, housing market area+`nc dwo`ncdc gnt r hmf l `j ds` qd`. The applicable housing market area `nc expanded housing market area should be hmc`b` sdc in Block 1e. Compare groups within rows/across columns on Worksheet 1 to identify any under-represented group(s) relative to the surrounding housing market area `nc dwo`ncdc gnt r hmf l `j ds` qd`, i.e., those group(s) "least likely to apply" for the housing without targeted outreach and marketing. If there is a particular group or subgroup with members of a protected class that has an identifiable presence in the housing market area, but is not included in Worksheet 1, please specify under "Other."

Qdronncdnc r gnt lc t rd sgd l nrsbt qplncdnl nf q ogth c` s` enl sgd T-R- Bdmrt r nq` mngdqnc`bh krnt pd rt bg `r` kb` kf nudqnl dnso k m hmf ncb- Okd` rd hmc`b` sd sgd rnt pd nexnt qc` s` lmO` q7 nesgtr end -

Block 3b - Using the information from the completed Worksheet 1, respondents should identify the demographic group(s) least likely to apply for the housing without special outreach efforts by checking all that apply.

Part 4 - Marketing Program and Residency Preference (if any).

Block 4a - A residency preference is a preference for admission of persons who reside or work in a specified geographic area (see 24 CFR 5.655(c)(1)(ii)). Respondents should indicate whether a residency preference is being utilized, and if so, respondents should specify if it is new, revised, or continuing. If a respondent wishes to utilize a residency preference, it must state the preference area (and provide a map delineating the precise area) and state the reason for having such a preference. The respondent must ensure that the preference is in accordance with the non-discrimination and equal opportunity requirements in 24 CFR 5.105(a) (see 24 CFR 5.655(c)(1)).

Respondents should use Worksheet 2 to show how the percentage of the eligible population living or working in the residency preference area compares to that of qrl`cdnc` of the project, project applicant data, bdmrt r sgd bshousing l `j ds` qd` +`nc dwo`ncdc gnt r hmf l `j ds` qd` - The percentages would be the same as shown on bnl`okdsc V nqj rgdds0-

Block 4b - Using Worksheet 3, respondents should describe their use of community contacts to gdlc market the project to those least likely to apply. This table should include the name of a contact person, his/her address, sldphone number, previous experience working with the target population(s), the approximate date contact was/will be initiated, and the specific role the community contact will play in `r r hmf v lsg` ebdj` shud e` lqgnt r hmf l `j ds` hmf nqnt sgd` bg-

Block 4c - Using Worksheet 4, respondents should describe their proposed method(s) of advertising to market to those least likely to apply. This table should identify each media option, sgd qd` r nmcqbggnr hmf sghr l dch` +`nc sgd k nft` f d nesgd` cudqrdl dnsc @ternative format(s) that will be used to reach odq nmr v lsg disabilities, and logo(s) that will appear on the u` qnt r materials (as well as their size) r gnt lc ad cdr bqdac.

Please attach a copy of the advertising or marketing material.

Part 5 – Availability of the Fair Housing Poster, AFHMP, and Project Site Sign.

Block 5a - The Fair Housing Poster must be prominently displayed in all offices in which sale or rental activity takes place (24 CFR 200.620(e)). Respondents should indicate all locations where the Fair Housing Poster will be displayed.

Block 5b -The AFHMP must be available for public inspection at the sales or rental office (24 CFR 200.625). Check all of the locations where the AFHMP will be `u` h` ald.

Block 5c -The Project Site Sign must display in a conspicuous position the HUD-approved Equal Housing Opportunity logo, slogan, or statement (24 CFR 200.620(f)). Respondents should indicate where the Project Site Sign will be displayed, as well as the size of the Sign and the size of the logo, slogan, or statement. **Please submit photographs of project site signs.**

Part 6 - Evaluation of Marketing Activities.

Respondents should explain the evaluation process to be used to determine if they have been successful in attracting those individuals identified as least likely to apply. Respondents should also explain how they will make decisions about future marketing activities based on the evaluations.

Part 7- Marketing Staff and Training.

Block 7a - Respondents should identify staff positions that are/will be responsible for affirmative marketing.

Block 7b - Respondents should indicate whether staff has been trained on the AFHMP and Fair Housing Act- Please indicate who provides the training. In addition, respondents should specify whether they periodically assess staff members' skills in the AFHMP and Fair Housing Act. They should state how often they assess employee skills and how they conduct the assessment.

Block 7c - Respondents should indicate whether staff has been trained on tenant selection in accordance with the project's occupancy policy, including residency preferences (if any). Respondents should also identify those staff positions that are/will be responsible for tenant selection.

Block 7d - Respondents should include copies of any written materials related to staff training, and identify the dates of past and anticipated training.

Part 8 - Additional Considerations.

Respondents should describe their efforts not previously mentioned that were/are planned to attract those individuals least likely to apply for the subject housing.

Part 9 - Review and Update.

By signing the respondent assumes responsibility for implementing the AFHMP. Respondents must review their AFHMP every five years or when the local Community Development jurisdiction's Consolidated Plan is updated or when there are significant changes in the demographics of the project market area. When reviewing the plan, the respondent should consider the current demographics of the project market area to determine if there have been changes in the population in terms of race, origin, religion, and disability. The respondent will then determine if the population least likely to apply for the housing is still the population identified in the AFHMP, whether the advertising and publicity cited in the current AFHMP are still appropriate or whether advertising sources should be included or expanded. Even if the demographics of the housing market area have not changed, the respondent should determine if the outreach currently being performed is reaching those it is intended to reach as measured by project occupancy and applicant data. If not, the AFHMP should be updated. The revised AFHMP must be submitted to HUD for approval. HUD may review whether the affirmative marketing is actually being performed in accordance with the AFHMP. If based on their review, respondents determine the AFHMP does not need to be revised, they should maintain a file documenting what was reviewed, what was found as a result of the review, and why no changes were required. HUD may review this documentation.

Notification of Intent to Begin Marketing.

No later than 90 days prior to the initiation of rental marketing activities, the respondent must submit notification of intent to begin marketing. The notification is required by the AFHMP Compliance Regulations (24 CFR 108.15). The notification is submitted to the Office of Housing in the HUD Office servicing the locality in which the proposed housing will be located. Upon receipt of the Notification of Intent to Begin Marketing from the applicant, the monitoring office will review any previously approved plan and may schedule a pre-occupancy conference. Such conference will be held prior to initiation of sales/rental marketing activities. At this conference, the previously approved AFHMP will be reviewed with the applicant to determine if the plan, and/or its proposed implementation, requires modification prior to initiation of marketing in order to achieve the objectives of the AFHM regulation and the plan.

OMB approval of the AFHMP includes approval of this notification procedure as part of the AFHMP. The burden hours for such notification are included in the total designated for this AFHMP form.

Worksheet 1: Determining Demographic Groups Least Likely to Apply for Housing Opportunities
(See AFHMP, Block 3b)

In the respective columns below, indicate the percentage of demographic groups among the project's residents, current project applicant data, census tract, housing market area, and expanded housing market area (See instructions to Block 1e). If you are a new construction or substantial rehabilitation project and do not have residents or project applicant data, only report information for census tract, housing market area, and expanded market area. The purpose of this information is to identify any under-representation of certain demographic groups in terms of race, color, national origin, religion, sex, familial status, or disability. If there is significant under-representation of any demographic group among project residents or current applicants in relation to the housing/expanded housing market area, then targeted outreach and marketing should be directed towards these individuals least likely to apply. Please indicate under-represented groups in Block 3b of the AFHMP. **Please attach maps showing both the housing market area and the expanded housing market area.**

Demographic Characteristics	Project's Residents	Project's Applicant Data	Census Tract	Housing Market Area	Expanded Housing Market Area
% White				77.5%	84.3%
% Black or African American				6.6%	5.7%
% Hispanic or Latino				7.2%	6.9%
% Asian				9.1%	6.5%
% American Indian or Alaskan Native				0.4%	0.5%
% Native Hawaiian or Pacific Islander				0.1%	0.1%
% Persons with Disabilities				5.8%	5.8%
% Families with Children under the age of 18				N/A (info not provided)	N/A (info not provided)
Other (specify)				HMA is Madison, WI	Expanded HMA is Dane C

Worksheet 2: Establishing a Residency Preference Area (See AFHMP, Block 4a)

Complete this Worksheet if you wish to continue, revise, or add a residency preference, which is a preference for admission of persons who reside or work in a specified geographic area (see 24 CFR 5.655(c)(1)(ii)). If a residency preference is utilized, the preference must be in accordance with the non-discrimination and equal opportunity requirements contained in 24 CFR 5.105(a). This Worksheet will help show how the percentage of the population in the residency preference area compares to the demographics of the project's residents, applicant data, census tract, housing market area, and expanded housing market area. **Please attach a map clearly delineating the residency preference geographical area.**

Demographic Characteristics	Project's Residents (as determined in Worksheet 1)	Project's Applicant Data (as determined in Worksheet 1)	Census Tract (as determined in Worksheet 1)	Housing Market Area (as determined in Worksheet 1)	Expanded Housing Market Area (as determined in Worksheet 1)	Residency Preference Area (if applicable)
\$ White						
\$ African American						
\$ Hispanic						
\$ Asian						
\$ Native Hawaiian or Other Pacific Islander						
\$ Persons with Disabilities						
\$ Families with Children under 18						
Other (specify)						

Worksheet 3: Proposed Marketing Activities –Community Contacts (See AFHMP, Block 4b)

For each targeted marketing population designated as least likely to apply in Block 3b, identify at least one community contact organization you will use to facilitate outreach to the o` qbt k qonot k smngroup. This could be a social service agency, religious ancx+` cunb` bx f qit o+community center, etc. State the names of contact persons, their addresses+gdltqdkdohone numbers, their oclunt r dvodqnlmbd working with the target population, the approximate date contact was/will be initiated, and the specific role they v tkok x hm` r r h smf with the affirmative fair housing marketing. Please attach additional pages if necessary.

Targeted Population(s)	Community Contact(s), including required information noted above.
Black or African American, Hispanic or Latino, Asian	Dane County Housing Authority, 6000 Gisholt Dr, Suite 203, Monona, WI 53713. Karyn Knaak; 608-224-3636 ext. 023. Dane County Housing Authority's mission is to promote and ensure safe, decent, and affordable housing. Dane County administers the Section 8 Housing Choice Voucher Program for families and individuals. They provide housing assistance and initial contact will be made in 12/2024.
Hispanic or Latino	Centro Hispano of Dane County. 810 West Badger Road, Madison, WI 53713. Nina Gehan, 608-255-3018. Centro Hispano has provided a range of programs that support Dane County's Latino population. The current programs focus on youth, families, and engaging in the community. Services include general support through advocacy and language assistance, improve and/or provide employment opportunities. Initial contact to be made 12/2024.
Veterans, Black or African American, Hispanic or Latino, Asian,	Salvation Army, 630 E. Washington Ave., Madison, WI 53703. Melissa Sorensen. Salvation Army will refer individuals and families that it provides assistance to under its DAWNS program where they help transition from homelessness to housing. This consist of weekly case management, rental assistance. Initial contract will be made in 12/2024.
Black or African American, Hispanic or Latino, Asian, Persons with disabilities, Veterans	Aging & Disability Resource Center of Dane County. 2865 N. Sherman Ave. Northside Town Center, Madison, WI 53704. 608-240-7400. ADRC provides information about resources and support related to aging or living with a disability. They provide housing options, financial aid, health and wellness, and transportation. Initial contract will be made in 12/2024.
Veterans, Black or African American, Hispanic or Latino, Asian, Persons with disabilities	Community Action Coalition For South Central Wisconsin, Inc. (CAC). Amber Duddy (608-246-4730). This organization helps homeless individuals and families including veterans. CAC provides in Dane County, financial assistance (housing support), homelessness prevention services, supportive services, and housing case management. Initial contact will be made in 12/2024.
Veterans, Black or African American, Hispanic or Latino, Asian, Persons with disabilities, prison reentry	JustDane, 2115 S. Park St., Madison, WI 53713. Linda Ketcham (608-256-0906). JustDane promotes interfaith cooperation and collaboration, convenes, and links people of faith communities to engage in social action and advocates for low income people. JustDane programs include Circles of Support, The Journey Home, Reentry Case Management, and Peer Support. Initial contact will be made in 12/2024.
Asian	Asian American Pacific Islander (AAPI) Coalition of Wisconsin. As this is a new organization that MSP Property Management will be reaching out to, we will first contact the organization through their email address listed as: wiaapi@gmail.com to establish a contact and phone number. The AAPI Coalition of Wisconsin unites AAPI leaders throughout the state, serving as a conduit for AAPO communities and local municipal/state resources to come together to stand against hate and racism. Initial contact will be made 12/2024.

Worksheet 4: Proposed Marketing Activities – Methods of Advertising (See AFHMP, Block 4c)

Complete the following table by identifying your targeted marketing population(s), as indicated in Block 3b, as well as the methods of advertising that will be used to market to that population. For each targeted population, state the means of advertising that you will use as applicable to that group (e.g., name of newspaper, television station, website, location of advertisement, radio station, etc.), and specify the logo(s) (as well as size) that will appear on the various materials. If necessary, specify the language(s) in which the material will be provided, identify any alternative format(s) to be used (e.g., name of newspaper, television station, website, location of advertisement, radio station, etc.), and specify the logo(s) (as well as size) that will appear on the various materials. If necessary, specify the language(s) in which the material will be provided, identify any alternative format(s) to be used (e.g., name of newspaper, television station, website, location of advertisement, radio station, etc.), and specify the logo(s) (as well as size) that will appear on the various materials.

Targeted Population(s) → Methods of Advertising ↓	Targeted Population:	Targeted Population:	Targeted Population:
Newspaper(s)			
Radio Station(s)			
TV Station(s)			
Electronic Media	Hispanic or Latino through SEO targeting with keywords	African American or Black, and Asian through SEO targeting with keywords	Veterans & persons with disabilities through SEO targeting with keywords
Apartments.com, Craigslist			
Bulletin Boards			
Brochures, Notices, Flyers	Persons with disabilities - Brochure provided to ADRC of Dane County	Veterans - Brochures provided to Salvation Army, CAC, Dept. of Veteran Affairs	Black or African American - Brochure provided to DCHA, JustDane
Brochures & Flyers			
Other (specify)	Postcard mailing targeted to residents within the census tract area.		
Targeted Mailing			



QuickFacts

Madison city, Wisconsin; Dane County, Wisconsin

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

All Topics	Madison city, Wisconsin	Dane County, Wisconsin
Population Estimates, July 1 2021, (V2021)	269,196	563,951
PEOPLE		
Population		
Population Estimates, July 1 2021, (V2021)	269,196	563,951
Population estimates base, April 1, 2020, (V2021)	268,414	561,504
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	0.3%	0.4%
Population, Census, April 1, 2020	269,840	561,504
Population, Census, April 1, 2010	233,209	488,073
Age and Sex		
Persons under 5 years, percent	5.0%	5.1%
Persons under 18 years, percent	16.1%	20.0%
Persons 65 years and over, percent	12.0%	14.7%
Female persons, percent	50.5%	50.0%
Race and Hispanic Origin		
White alone, percent	77.5%	84.3%
Black or African American alone, percent (a)	6.6%	5.7%
American Indian and Alaska Native alone, percent (a)	0.4%	0.5%
Asian alone, percent (a)	9.1%	6.5%
Native Hawaiian and Other Pacific Islander alone, percent (a)	0.1%	0.1%
Two or More Races, percent	5.0%	3.0%
Hispanic or Latino, percent (b)	7.2%	6.9%
White alone, not Hispanic or Latino, percent	72.9%	78.3%
Population Characteristics		
Veterans, 2016-2020	9,345	22,530
Foreign born persons, percent, 2016-2020	11.9%	8.5%
Housing		
Housing units, July 1, 2021, (V2021)	X	253,908
Owner-occupied housing unit rate, 2016-2020	47.7%	59.0%
Median value of owner-occupied housing units, 2016-2020	\$262,400	\$277,000
Median selected monthly owner costs -with a mortgage, 2016-2020	\$1,742	\$1,808
Median selected monthly owner costs -without a mortgage, 2016-2020	\$786	\$739
Median gross rent, 2016-2020	\$1,147	\$1,118
Building permits, 2021	X	6,836
Families & Living Arrangements		
Households, 2016-2020	111,832	226,600
Persons per household, 2016-2020	2.20	2.33
Living in same house 1 year ago, percent of persons age 1 year+, 2016-2020	74.4%	81.4%
Language other than English spoken at home, percent of persons age 5 years+, 2016-2020	14.3%	10.8%
Computer and Internet Use		
Households with a computer, percent, 2016-2020	95.6%	95.4%
Households with a broadband Internet subscription, percent, 2016-2020	89.1%	90.0%
Education		
High school graduate or higher, percent of persons age 25 years+, 2016-2020	95.9%	96.2%
Bachelor's degree or higher, percent of persons age 25 years+, 2016-2020	58.5%	52.4%
Health		
With a disability, under age 65 years, percent, 2016-2020	5.8%	5.8%
Persons without health insurance, under age 65 years, percent	4.3%	4.6%
Economy		
In civilian labor force, total, percent of population age 16 years+, 2016-2020	71.6%	71.5%
In civilian labor force, female, percent of population age 16 years+, 2016-2020	69.5%	68.8%

Total accommodation and food services sales, 2017 (\$1,000) (c)	960,212	1,476,697
Total health care and social assistance receipts/revenue, 2017 (\$1,000) (c)	5,638,652	7,128,885
Total transportation and warehousing receipts/revenue, 2017 (\$1,000) (c)	274,503	691,460
Total retail sales, 2017 (\$1,000) (c)	6,336,348	10,139,216
Total retail sales per capita, 2017 (c)	\$24,729	\$18,850
Transportation		
Mean travel time to work (minutes), workers age 16 years+, 2016-2020	19.8	21.3
Income & Poverty		
Median household income (in 2020 dollars), 2016-2020	\$67,565	\$75,179
Per capita income in past 12 months (in 2020 dollars), 2016-2020	\$39,595	\$41,755
Persons in poverty, percent	△ 16.4%	△ 9.6%

BUSINESSES

Businesses		
Total employer establishments, 2020	X	14,345
Total employment, 2020	X	303,603
Total annual payroll, 2020 (\$1,000)	X	17,903,443
Total employment, percent change, 2019-2020	X	1.3%
Total nonemployer establishments, 2019	X	38,955
All employer firms, Reference year 2017	5,443	11,412
Men-owned employer firms, Reference year 2017	2,845	6,367
Women-owned employer firms, Reference year 2017	877	1,855
Minority-owned employer firms, Reference year 2017	362	572
Nonminority-owned employer firms, Reference year 2017	3,895	9,184
Veteran-owned employer firms, Reference year 2017	S	558
Nonveteran-owned employer firms, Reference year 2017	3,946	8,984

GEOGRAPHY

Geography		
Population per square mile, 2020	3,391.2	469.3
Population per square mile, 2010	3,037.0	407.7
Land area in square miles, 2020	79.57	1,196.49
Land area in square miles, 2010	76.79	1,197.24
FIPS Code	5548000	55025

[About datasets used in this table](#)

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the left of a row in TABLE view to learn about sampling error.

The vintage year (e.g., V2021) refers to the final year of the series (2020 thru 2021). Different vintage years of estimates are not comparable.

Users should exercise caution when comparing 2016-2020 ACS 5-year estimates to other ACS estimates. For more information, please visit the [2020 5-year ACS Comparison Guidance](#) page.

Fact Notes

- (a) Includes persons reporting only one race
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data
- (b) Hispanics may be of any race, so also are included in applicable race categories

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper interval of an open ended distribution.
- F Fewer than 25 firms
- D Suppressed to avoid disclosure of confidential information
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- FN Footnote on this item in place of data
- X Not applicable
- S Suppressed; does not meet publication standards
- NA Not available
- Z Value greater than zero but less than half unit of measure shown

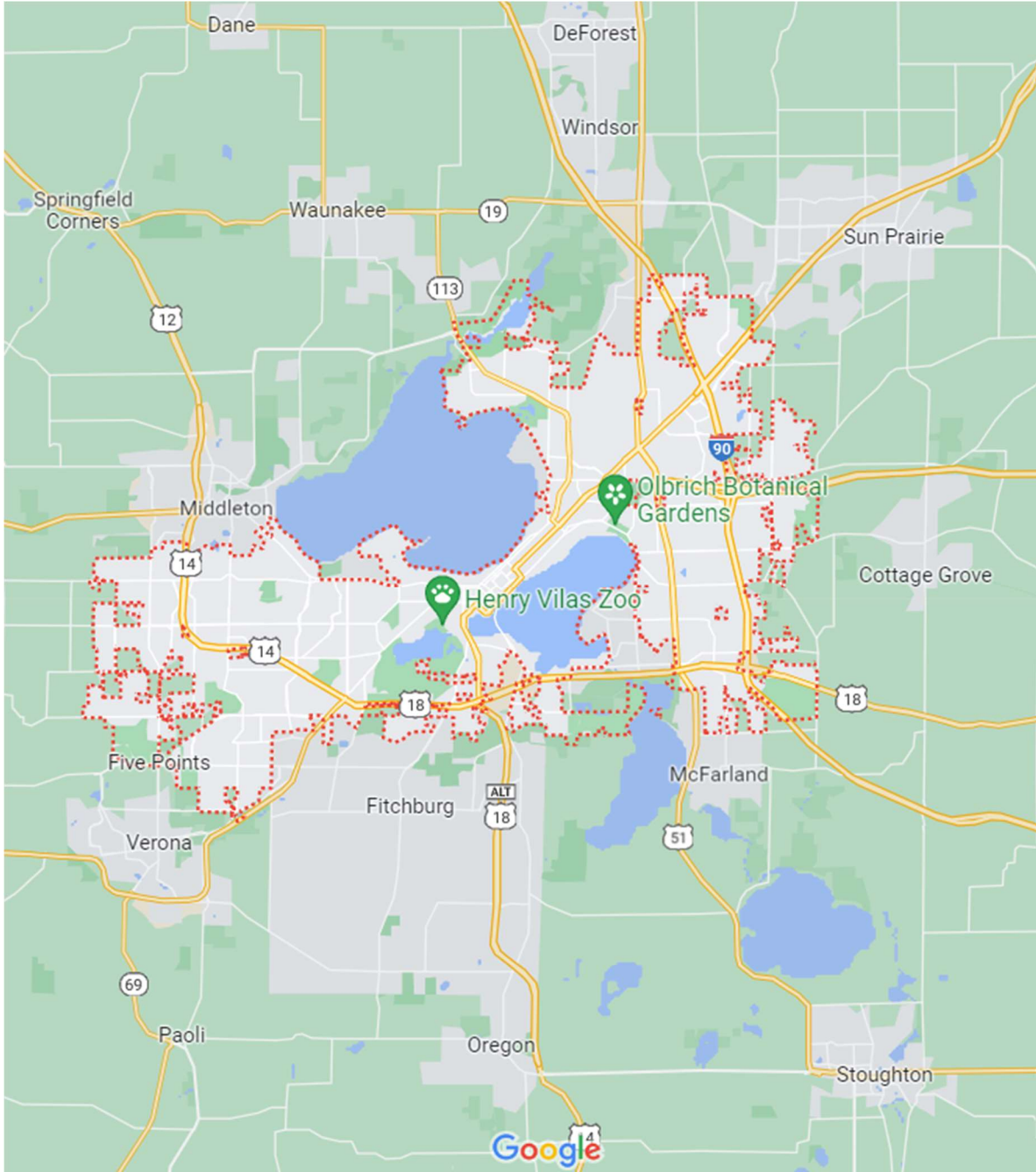
QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

CONNECT WITH US

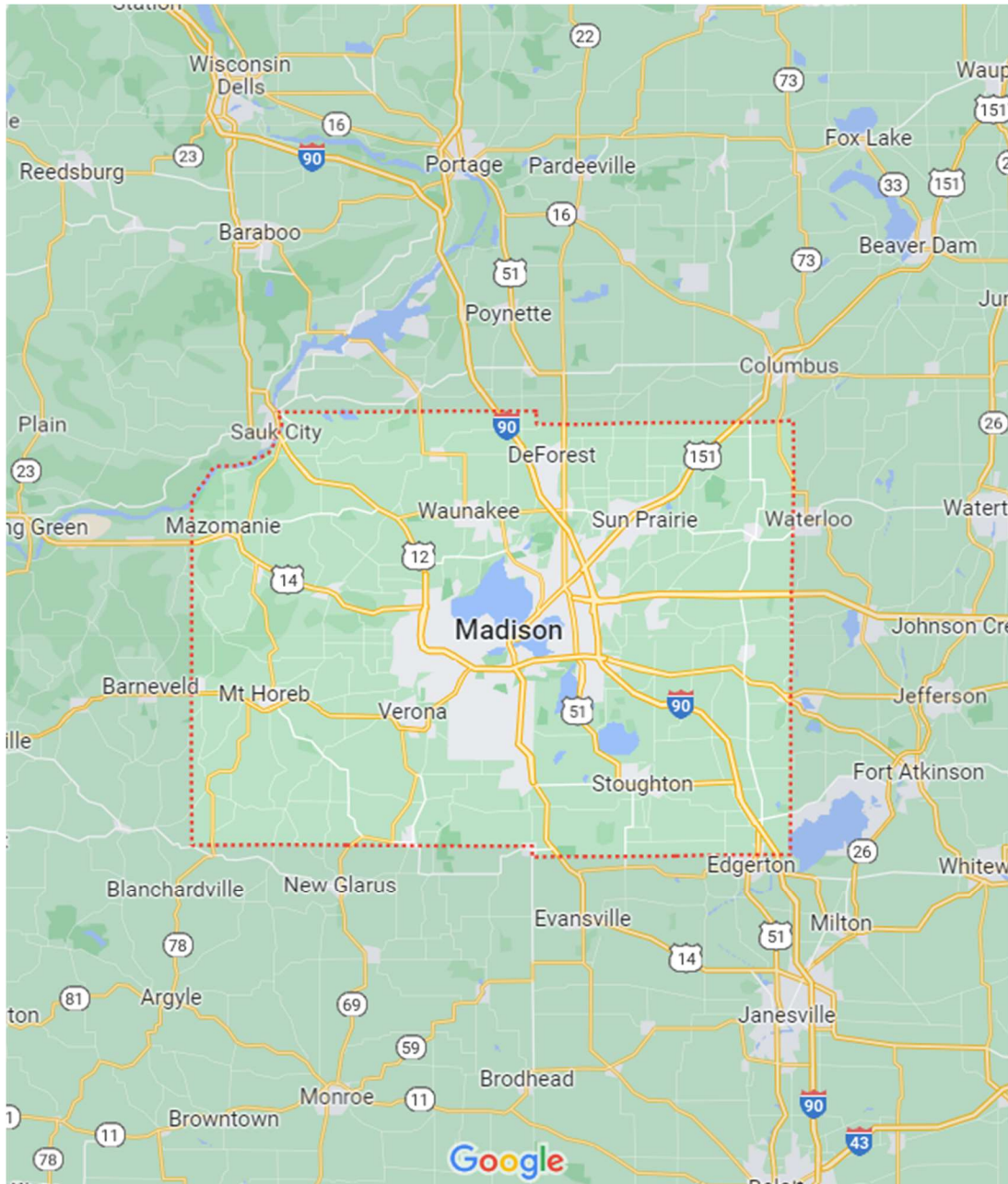
[Information Quality](#) | [Data Linkage Infrastructure](#) | [Data Protection and Privacy Policy](#) | [Accessibility](#) | [FOIA](#) | [Inspector General](#) | [No FEAR Act](#) | [U.S. Department of Commerce](#) | [USA.gov](#)

Measuring America's People, Places, and Economy

Housing Market Area: Madison, WI



Expanded Housing Market Area: Dane County, WI



Section 1C – Budget Workbook

APPLICANT & PROJECT NAME: MSP Real Estate, Inc. - Yellowstone Apartments

1. CAPITAL BUDGET
Enter ALL proposed project funding sources.

FUNDING SOURCES

Source	Amount	Non-Amortizing (Y/N)	Rate (%)	Term (Years)	Amort. Period (Years)	Annual Debt Service
Permanent Loan-Lender Name:						
First Mortgage	\$ 3,445,000	N	6.65%	15	35	\$254,030
Subordinate Loan 1-Lender Name:						
Subordinate Loan 2-Lender Name:						
Tax Exempt Loan-Bond Issuer:						
City Request (AHF, HOME, TIF)						
Subordinate TIF Loan-Lender Name:						
AHP Loan (List FHLB):						
Dane County AHDF:						
Dane County AHDF	\$ 1,500,000	Y	2.00%	30	0	\$30,000
Other-Specify Lender/Grantor:						
City of Madison AHF - Deferred	\$ 1,020,000	Y	0.00%	30	0	\$0
Other-Specify Lender/Grantor:						
City of Madison AHF - Cash Flow	\$ 1,020,000	N	2.75%	16	30	\$49,969
Tax Credit Equity	\$ 12,458,754					
Historic Tax Credit Equity (Fed and/or State)						
Deferred Developer Fees	\$ 638,978					
Owner Investment						
Other-Specify:						
Total Sources	\$ 20,082,732					

Do you plan on submitting an application for TIF? No

Construction Financing			
Source of Funds	Amount	Rate	Term (Months)
Construction Loan 1-Lender Name:			
Construction Loan	\$ 12,300,000	7.41%	24
Construction Loan 2-Lender Name:			
Construction Loan 3-Lender Name:			
Construction Loan 4-Lender Name:			
Bridge Loan-Lender Name:			
Housing Tax Credit Equity:			
Tax Credit Investor	\$ 2,491,751		
Historic Tax Credit Equity:			
Other-Specify:			
Total	\$ 14,791,751		

Estimated pricing on sale of Federal Tax Credits: \$ 0.89

Estimated pricing on sale of State Tax Credits:
(if applicable)

Remarks Concerning Project Funding Sources:

APPLICANT:

MSP Real Estate, Inc.

2. PROJECT EXPENSES

Enter the proposed project expenses

Acquisition Costs	Amount
Land	\$1,500,000
Existing Buildings/Improvements	\$0
Other (List)	
	\$0

Construction:	
Construction/Rehab Costs	\$12,901,548
E - Equipment & Furnishings	\$0
F - Special Construction & Demolition	\$100,000
Accessory Buildings	\$0
Personal Property/FF&E	\$100,000
Site Work Costs (on-site & off-site)	\$0
Landscaping	\$0

Contractor Fees:	
General Requirements	\$455,760
Construction Overhead	\$106,340
Construction Profit	\$608,040
Construction Supervision	\$0

Contingency Funds:	
Construction Contingency	\$708,584
Other Contingency	\$0

Construction Period Expenses/Soft Costs:	
Construction Loan Origination Fee	\$61,500
Construction Loan Credit Enhancement/LOC	\$2,000
Cost of Bond Issuance	\$0
Bridge Loan Fees and Expenses	\$0
Construction Loan Interest	\$800,000
Construction Loan Origination Fee	\$0
Construction Period Real Estate Taxes	\$70,000
Title and Recording	\$0
Builder's Risk/Property Insurance	\$75,000
Temporary Relocation Assistance	\$0
Permanent Relocation Assistance	\$0
Other Interim/Construction Costs (list)	
	\$0

Permanent Financing Expenses:	
Permanent Loan Origination Fee	\$0
Credit Enhancement	\$0
Other Permanent Loan Fees	\$0
Legal Fees - Real Estate	\$40,000

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If applicable, please list the costs attributable to "above and beyond" green building/Net Zero construction components included in the Construction Costs line item:

Total Cost:

WI Green Built Gold Standard

~\$750,000

ENERGY STAR Multifamily Construction

HVAC, Plumbing, Window, & Insulation Enhancements Solar, Etc.

Architectural & Engineering:	
Architect - Design	\$240,000
Architect - Supervision	\$20,000
Engineering	\$20,000
Survey	\$6,500
Other Architect/Engineering (list)	
Other Architect (Landscape, Interior)	\$15,000
Syndication Fees & Expenses:	
Organizational Fees	\$260
Other Syndication Costs (list)	
Tax Opinion	\$7,500
Capitalized Reserves:	
Operating Reserve	\$390,000
Replacement Reserve	\$0
Lease-Up Reserve	\$50,000
Debt Service Reserve	\$0
Capital Needs Reserve	\$0
Other Reserves	\$0
Escrows	\$0
Other Capitalized Reserves (list)	
	\$0
Reports, Studies & Related Work:	
Appraisal	\$8,000
Market Study	\$7,000
Environmental Reports	\$56,000
Capital Needs Assessment Report	\$0
Other (list)	
	\$0
Other Soft Costs:	
Tax Credit Fees - Application	\$2,000
Tax Credit Fees - Compliance	\$140,000
Tax Credit Fees - Allocation	\$600
Permits & impact fees - water, sewer, etc.	\$66,450
Cost Certification/Accounting fees	\$23,000
Lease-Up Period Marketing	\$90,000
Title Insurance and Recording	\$31,650
Capital Needs Assessment (rehab only)	\$0
Legal	\$95,000
Other (list)	
Other Soft Costs	\$25,000
Developer Earned Fees & Expenses:	
Developer's Fee	\$1,260,000
Developer Overhead	\$0
Consultant Fees	\$0
Other fees (list)	
	\$0
Total Costs:	\$20,082,732

APPLICANT: MSP Real Estate, Inc.

3. PROJECT PROFORMA

Enter total Revenue and Expense information for the proposed project for a 30 year period.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Gross Income	858,178	875,342	892,848	910,705	928,919	947,498	966,448	985,777	1,005,492	1,025,602	1,046,114	1,067,036	1,088,377	1,110,145	1,132,348	1,154,995
Less Vacancy/Bad Debt	60,072	61,274	62,499	63,749	65,024	66,325	67,651	69,004	70,384	71,792	73,228	74,693	76,186	77,710	79,264	80,850
Income from Non-Residential Use*	27,621	28,173	28,737	29,312	29,898	30,496	31,106	31,728	32,362	33,010	33,670	34,343	35,030	35,731	36,445	37,174
Total Revenue	825,727	842,241	859,086	876,268	893,793	911,669	929,902	948,500	967,470	986,820	1,006,556	1,026,687	1,047,221	1,068,165	1,089,529	1,111,319
Expenses:																
Office Expenses and Phone	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	6,921	7,129	7,343	7,563	7,790
Real Estate Taxes	112,200	115,566	119,033	122,604	126,282	130,071	133,973	137,992	142,132	146,396	150,787	155,311	159,970	164,769	169,713	174,804
Advertising, Accounting, Legal Fees	12,000	12,360	12,731	13,113	13,506	13,911	14,329	14,758	15,201	15,657	16,127	16,611	17,109	17,622	18,151	18,696
Payroll, Payroll Taxes and Benefits	90,000	92,700	95,481	98,345	101,296	104,335	107,465	110,689	114,009	117,430	120,952	124,581	128,318	132,168	136,133	140,217
Property Insurance	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095	26,878	27,685	28,515	29,371	30,252	31,159
Mtc, Repairs and Mtc Contracts	65,000	66,950	68,959	71,027	73,158	75,353	77,613	79,942	82,340	84,810	87,355	89,975	92,674	95,455	98,318	101,268
Utilities (gas/electric/fuel/water/sewer)	65,000	66,950	68,959	71,027	73,158	75,353	77,613	79,942	82,340	84,810	87,355	89,975	92,674	95,455	98,318	101,268
Property Mgmt	53,672	55,282	56,941	58,649	60,409	62,221	64,087	66,010	67,990	70,030	72,131	74,295	76,524	78,819	81,184	83,620
Operating Reserve Pmt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement Reserve Pmt	18,000	18,540	19,096	19,669	20,259	20,867	21,493	22,138	22,802	23,486	24,190	24,916	25,664	26,434	27,227	28,043
Support Services		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (List)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Operating Expenses	440,872	454,098	467,721	481,753	496,206	511,092	526,424	542,217	558,484	575,238	592,495	610,270	628,578	647,436	666,859	686,865
Net Operating Income	384,854	388,143	391,365	394,515	397,587	400,577	403,478	406,283	408,987	411,581	414,061	416,417	418,643	420,730	422,670	424,455
Debt Service:																
First Mortgage	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030
Second Mortgage		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (List)																
Asset Management Fee	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	8,305	8,555	8,811	9,076	9,348
Dane County AHDF	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Total Debt Service	290,030	290,210	290,396	290,587	290,783	290,986	291,194	291,409	291,631	291,859	292,094	292,336	292,585	292,841	293,106	293,378
Total Annual Cash Expenses	730,902	744,309	758,117	772,339	786,989	802,078	817,619	833,627	850,115	867,097	884,589	902,606	921,163	940,277	959,964	980,243
Total Net Operating Income	94,824	97,933	100,969	103,928	106,804	109,591	112,283	114,874	117,356	119,723	121,967	124,081	126,058	127,888	129,564	131,077
Debt Service Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred Developer Fee	44,855	47,964	51,000	53,959	56,835	59,623	62,315	64,905	67,387	69,754	72,000	74,131	76,148	78,052	79,843	81,521
Cash Flow	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	61,586	124,081	126,058	127,888	129,564	131,077
AHF City Interest Loan	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969

*Including commercial tenants, laundry facilities, vending machines, parking spaces, storage spaces or application fees.

DCR Hard Debt	1.51	1.53	1.54	1.55	1.57	1.58	1.59	1.60	1.61	1.62	1.63	1.64	1.65	1.66	1.66	1.67
DCR Total Debt	1.13	1.14	1.15	1.16	1.17	1.17	1.18	1.19	1.20	1.20	1.21	1.22	1.22	1.23	1.23	1.24

Assumptions

Vacancy Rate	7.0%
Annual Increase Income	2.0%
Annual Increase Expenses	3.0%
Other	

*Please list all fees (per unit per month) and non-residential income:

Underground Parking: \$75/month (33 parking stalls) at 93% occupancy

APPLICANT:

MSP Real Estate, Inc.

3. PROJECT PROFORMA (cont.)

Enter total Revenue and Expense information for the proposed project for a 30 year period.

	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30
Gross Income	1,178,094	1,201,656	1,225,690	1,250,203	1,275,207	1,300,712	1,326,726	1,353,260	1,380,325	1,407,932	1,436,091	1,464,812	1,494,109	1,523,991
Less Vacancy/Bad Debt	82,467	84,116	85,798	87,514	89,265	91,050	92,871	94,728	96,623	98,555	100,526	102,537	104,588	106,679
Income from Non-Residential Use*	37,918	38,676	39,450	40,239	41,043	41,864	42,702	43,556	44,427	45,315	46,221	47,146	48,089	49,051
Total Revenue	1,133,546	1,156,217	1,179,341	1,202,928	1,226,986	1,251,526	1,276,556	1,302,088	1,328,129	1,354,692	1,381,786	1,409,421	1,437,610	1,466,362
Expenses:														
Office Expenses and Phone	8,024	8,264	8,512	8,768	9,031	9,301	9,581	9,868	10,164	10,469	10,783	11,106	11,440	11,783
Real Estate Taxes	180,048	185,450	191,013	196,743	202,646	208,725	214,987	221,436	228,079	234,922	241,970	249,229	256,705	264,407
Advertising, Accounting, Legal Fees	19,256	19,834	20,429	21,042	21,673	22,324	22,993	23,683	24,394	25,125	25,879	26,655	27,455	28,279
Payroll, Payroll Taxes and Benefits	144,424	148,756	153,219	157,816	162,550	167,427	172,449	177,623	182,951	188,440	194,093	199,916	205,913	212,091
Property Insurance	32,094	33,057	34,049	35,070	36,122	37,206	38,322	39,472	40,656	41,876	43,132	44,426	45,759	47,131
Mtc, Repairs and Mtc Contracts	104,306	107,435	110,658	113,978	117,397	120,919	124,547	128,283	132,132	136,096	140,178	144,384	148,715	153,177
Utilities (gas/electric/fuel/water/sewer)	104,306	107,435	110,658	113,978	117,397	120,919	124,547	128,283	132,132	136,096	140,178	144,384	148,715	153,177
Property Mgmt	86,128	88,712	91,373	94,115	96,938	99,846	102,842	105,927	109,105	112,378	115,749	119,222	122,798	126,482
Operating Reserve Pmt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement Reserve Pmt	28,885	29,751	30,644	31,563	32,510	33,485	34,490	35,525	36,590	37,688	38,819	39,983	41,183	42,418
Support Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (List)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Expenses	707,470	728,695	750,555	773,072	796,264	820,152	844,757	870,099	896,202	923,089	950,781	979,305	1,008,684	1,038,944
Net Operating Income	426,075	427,522	428,785	429,856	430,722	431,374	431,800	431,988	431,927	431,603	431,005	430,117	428,926	427,418
Debt Service:														
First Mortgage	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030	254,030
Second Mortgage	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (List)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asset Management Fee	9,628	9,917	10,215	10,521	10,837	11,162	11,497	11,842	12,197	12,563	12,940	13,328	13,728	14,139
Dane County AHDF	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Total Debt Service	293,658	293,947	294,245	294,551	294,867	295,192	295,527	295,872	296,227	296,593	296,970	297,358	297,758	298,170
Total Annual Cash Expenses	1,001,129	1,022,642	1,044,800	1,067,623	1,091,131	1,115,344	1,140,284	1,165,971	1,192,429	1,219,681	1,247,751	1,276,663	1,306,441	1,337,114
Total Net Operating Income	132,417	133,575	134,541	135,304	135,855	136,182	136,273	136,116	135,700	135,011	134,035	132,759	131,168	129,248
Debt Service Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred Developer Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Flow	132,417	133,575	134,541	135,304	135,855	136,182	136,273	136,116	135,700	135,011	134,035	132,759	131,168	129,248
AHF City Interest Loan	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969	49,969

*Including laundry facilities, vending machines, parking spaces, storage spaces or application fees.

DCR Hard Debt	1.68	1.68	1.69	1.69	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.69	1.69	1.68
DCR Total Debt	1.24	1.24	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.24	1.24	1.23	1.23

Assumptions

Vacancy Rate	7.0%
Annual Increase Income	2.0%
Annual Increase Expenses	3.0%
Other	

Section 2C.1.i – The Salvation Army Support Letter



Brian Peddle
General

Commissioner Brad Bailey
Territorial Commander

Major Steven J. Merritt
Divisional Commander

Major Andrew Shiels
Capital Area Coordinator
Madison Temple Corps Officer

Major Melissa Shiels
Capital Area Program Director
Madison Temple Corps Officer

Captains Vong and Ting Luangkhamdeng
Madison Genesis Corps Officers

July 14, 2023

Mr. Mark Hammond
Director of Development MSP Real Estate
7901 W. National Ave.
West Allis, WI 53214

RE: WHEDA Tax-Credit Rental Housing Development
Yellowstone Apartments – 426 South Yellowstone Drive, Madison, WI 53719

Dear Mr. Hammond,

The Salvation Army is a worldwide religious and charitable organization dedicated to serving those in need without discrimination. In Dane County, we have one worship and community center and two homeless shelters. Alongside the Single Women's Shelter and the Emergency Family Shelter, The Salvation Army of Dane County host six housing programs and a Diversion Program – an effort to keep families and individuals from entering the shelter system at all.

My understanding is that Yellowstone Apartments, located at 426 South Yellowstone Drive, will be an affordable rental development that will create approximately 12 supportive housing units for individuals/families earning 30% or less of the Dane County area median income. The target population for these supportive housing units is individuals/families whose incomes qualify for the 30% rent restricted units. The available 12 supportive housing units will be generally spread across a mix of 1, 2, & 3 bedroom units at the 30% rent restricted level, but MSP will work with The Salvation Army to target units types with the greatest need which is currently understood to be slighter greater for 2 and 3 bedroom units but generally needed across all unit types. MSP Real Estate will notify the Salvation Army of the number of supportive housing units to be targeted for Salvation Army specific referrals as the project progresses, but currently anticipates approximately 5 units to be targeted to Salvation Army referrals.

The Salvation Army will refer individuals and families that it provides assistance to under our Dane County Assists With New Starts (DAWNS) program and our RISE program to Yellowstone Apartments. Individuals and families transitioning from homelessness to housing can be offered a rapid rehousing package through our DAWNS and RISE programs. This package consists of weekly case management sessions, security deposit, and first month's rental assistance for the DAWNS program and up to a years' rental assistance in our RISE program. Additional rental assistance may be granted on an individual case by case basis. Cas management support can last up to two years and will be provided at the resident's apartment or Salvation Army offices. The Salvation Army will extend its monetary rental resources and caseworker support under our DAWNS and RISE programs to individuals/families that it refers to live at Yellowstone Apartments.

MSP Real Estate and the Salvation Army will also partner with the Homeless Services Consortium for these supportive housing units at Yellowstone Apartments to work toward the goal of ending homelessness for individuals and/or families by providing a preference for households experiencing homelessness.

The Salvation Army strongly supports the proposed apartment community that MSP Real Estate intends to build as a new affordable housing option that will assist the City of Madison's efforts to promote housing stability and/or prevent homelessness.

If you have any questions feel free to call me at (608)-250-2237.

Sincerely,



Melissa Sorensen
Social Services Executive Director
The Salvation Army of Dane County

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (the “MOU”) is made on this 11th day of January, 2023 (the “Effective Date”) by and between Dane County Veterans Service Office (CVSO) and MSP Real Estate, Inc or its assigns (Owner) and MSP Property Management LLC (Property Management Agent).

WITNESSETH

WHEREAS, the Developer is the developer of approximately 60 proposed apartment units in a development to be located at 426 S Yellowstone Drive, Madison, WI.

WHEREAS, the Dane County Veterans Service Office is an organization which assists eligible veterans and their dependents in applying for state and federal veterans benefits, and whose mission is to serve all veterans and their families, with dignity and compassion, by providing assistance in the preparation and submission of claims for benefits to which they may be entitled, and to serve as their principal advocate and link to services on veterans’ related issues.

WHEREAS, the intent of this Memorandum is to confirm our mutual desire and commitment to initiate a collaborative relationship to ensure eligible veterans are aware of the availability of affordable housing units in this development, and establish communication to connect future low income residents with appropriate services and service providers.

WHEREAS, the Developer is seeking financial support from the Wisconsin Housing and Economic Development Authority (WHEDA) through the Section 42 Low Income Housing Tax Credit Program (LIHTC) to construct the property.

WHEREAS, anticipating that the application will be well received by WHEDA, and hopeful that it will receive funding that will allow construction of the community, the Developer wishes to proactively establish an area referral network that includes the Dane County Veterans Service Office.

NOW THEREFORE, Developer and the Dane County Veterans Service Office agree:

- 1) The proposed project intends to provide approximately 12 “supportive housing units” (30% CMI units) at very affordable rents. The target population for the supportive housing units is individuals, families, veterans and the senior population who have permanent developmental, physical, sensory, medical or mental health disabilities or a combination of impairments that make them eligible for long term care services.
- 2) Should the proposed project be constructed, Developer and/or its property management agent will, whenever there is a vacant supportive housing unit, contact your office and other area local partners asking for referrals of prospective residents who are low income and are veterans. This contact will be made by the Developer or their onsite management agent staff via email or phone.
- 3) The Developer’s property management agent will establish a waiting list of prospective residents based on referrals described above.
- 4) The Developer and its property management agent will endeavor to make existing and prospective residents aware of services and resources available by provision of a tenant resource area within the common area of the proposed development. The tenant resource area will consist of contact information for the CVSO as well as materials and brochures of the Dane County Aging and Disability Resource Center (ADRC), and other area collaborative partners. New residents will also receive a copy of the CVSO and ADRC brochure directly from the property manager at the time of lease signing. Our onsite management agent staff will be coached regarding “who and how” with regards to the CVSO and ADRC to help

connect residents to the appropriate service networks.

- 5) The proposed project will not provide long term services, nor charge fees related to long term services to residents, but will rather refer residents to the CVSO, the ADRC, and other area local partners in order to assist residents to locate the services and funding appropriate to their individual need.
- 6) Residents will not be required to receive any services in order to reside in the development. Residents that desire to receive services will have a choice in service provider(s).

Administrative Provisions

Duration

This MOU is subject to the project receiving an award of LIHTC, with operations expected to commence in the Summer of 2025. The initial period shall be 12 months from commencement of leasing operations. Either party may terminate this agreement with 30 days' notice at the end of the initial period.

Amendments

This MOU may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy is signed by all parties.

Confidentiality

It is agreed that by virtue of entering into this MOU they will have access to certain confidential information regarding the other party's operations related to this project. It is further agreed that the parties will not at any time disclose confidential information and/or material without the consent of that party unless such disclosure is authorized by this MOU or required by law. Unauthorized disclosure of confidential information shall be considered a breach of this MOU. Where appropriate, client releases will be secured before confidential information is exchanged. Confidential client information will be handled with the utmost discretion and judgment.

Nondiscrimination

There shall be no discrimination of any person or group of persons on account of race, color, creed, religion, sex, marital status, sexual orientation, age, handicap, ancestry, or national origin in the operation of the project.

Signatories:

Dane County Veterans Service Office

By:  _____

Date: 1/22/2023

Name: Daniel A. Connery
Title: Veterans Service Director - Dane County
Veterans Service Office

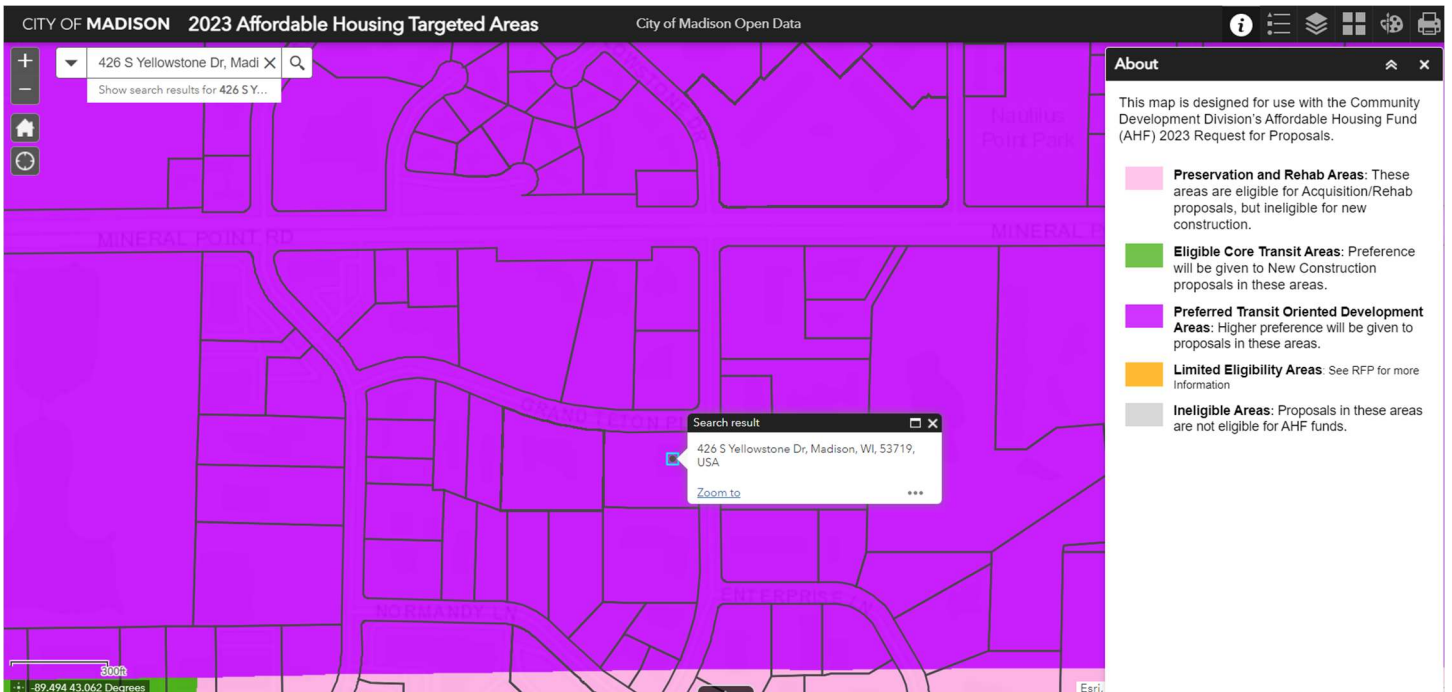
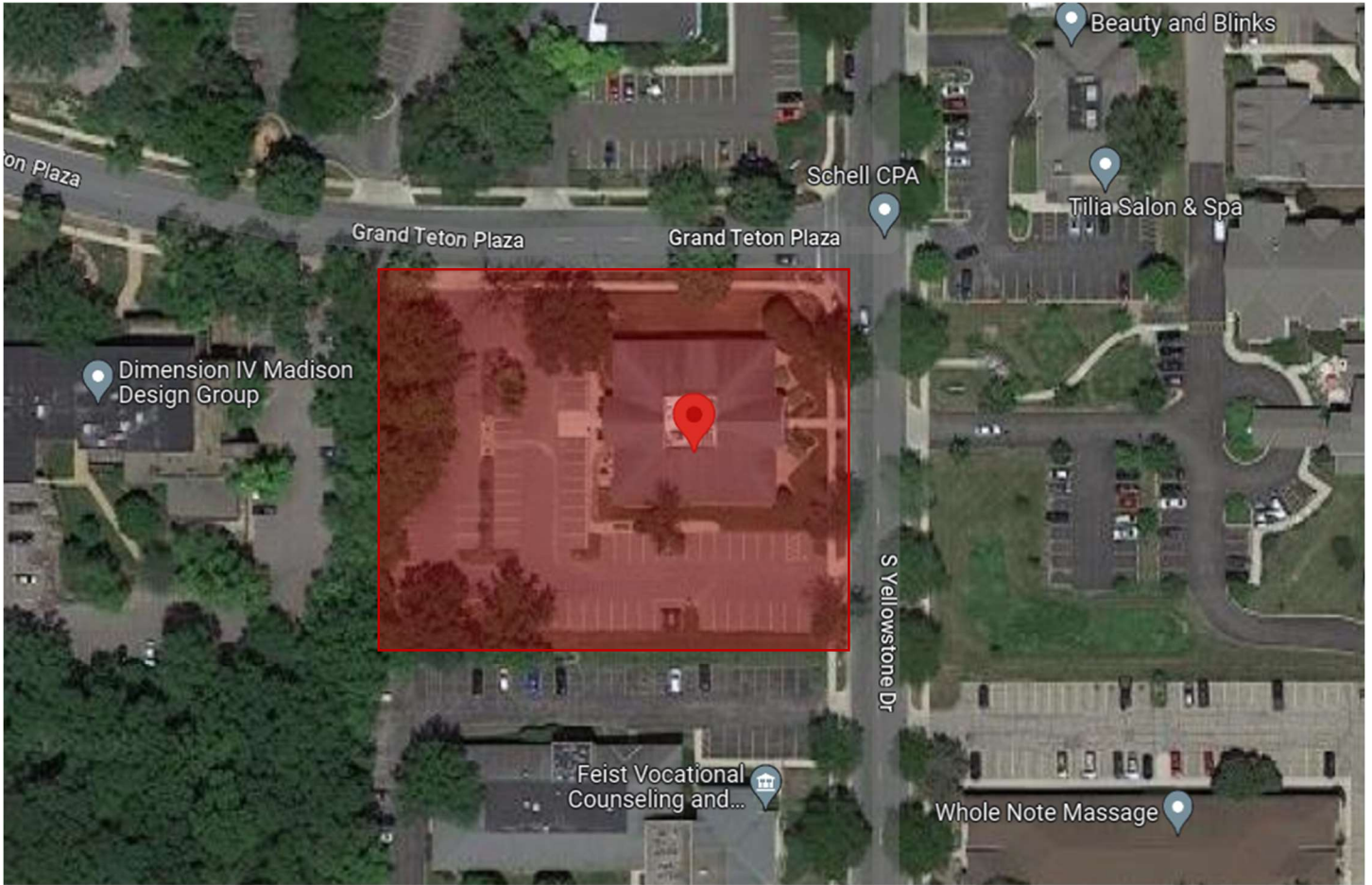
MSP Real Estate, Inc.

By:  _____

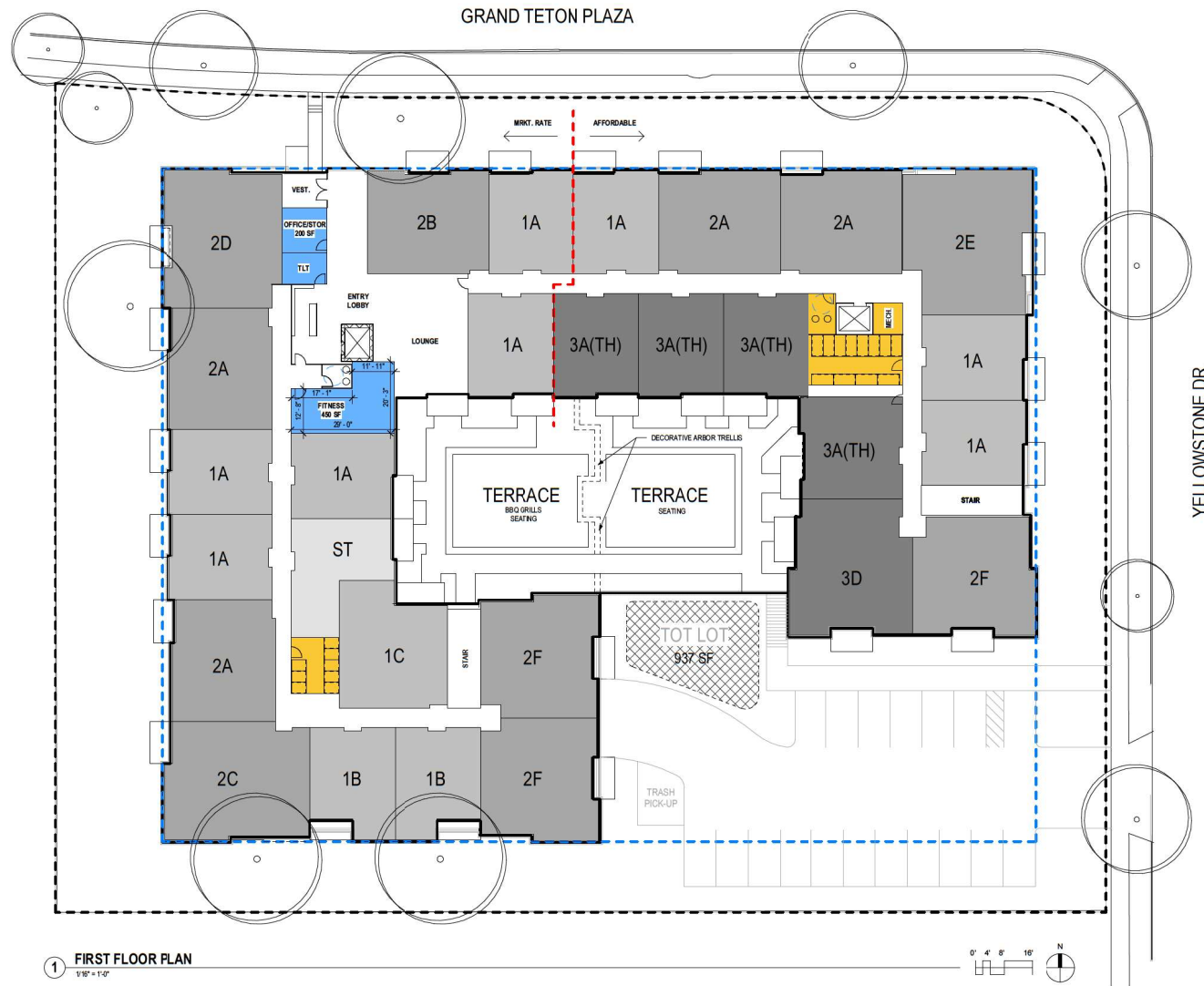
Date: 1.23.2023

Name: Mark Hammond
Title: VP of Development

Section 3A – Detailed Site Map & City AHF Context Map



Section 3B – Preliminary Site Plan & Elevations



MSP YELLOWSTONE
 426 South Yellowstone Drive

DATE OF ISSUE: 06/12/23

REVISIONS:

PROJECT # 22128

FIRST FLOOR PLAN

1 FIRST FLOOR PLAN
 1/8" = 1'-0"





Section 4 – Confirmation of Initial Application to Focus on Energy

Alyssa Klecker

From: noreply@twgi.com on behalf of New Construction - Multifamily <noreply@twgi.com>
Sent: Friday, April 7, 2023 3:12 PM
To: Alyssa Klecker; Mark Hammond
Subject: Welcome to New Construction - Multifamily (FOEMF-840E3-27923)

Thank You

A notification of this application has been submitted.

Application Number: [**FOEMF-840E3-27923**](#)
Sponsor: **Focus on Energy**
Program: **New Construction - Multifamily**
Created By: **Alyssa Klecker on 4/7/2023 3:11:41 PM**
Project Name: **Yellowstone Apartments**
Project Location: **426 S Yellowstone Dr
Madison, WI 53719**
Business Customer: **Yellowstone Apartments, LLC**
Building Type: **Multifamily**

Your unique application number is listed below. You can make additional modifications to the application by clicking the link below. You will be required to login or establish an account.

[FOEMF-840E3-27923](#)

[Skip to main content](#)



Welcome to the New Construction Application

- Enter as much information that is known at this time; the rest can be entered later.
- Fields marked with a red bar are required.
- After entering information, click the "Submit" button at the bottom of the page to save your progress.
- Once the information is submitted, you will receive a link via email that can be used to access the form again, or forwarded to others to complete more of the application.

APPLICATION

FOEMF-840E3-27923

Created by **Alyssa Klecker** on 4/7/2023 3:11:41 PM. MSP Real Estate, Inc.. aklecker@msphousing.com . 4143086142

Last modified by Matthew Jarosz on 4/10/2023 8:43:17 AM [Revision 2]. Willdan. MJarosz@willdan.com

TERMS & CONDITIONS

[Read the terms & conditions](#)

I have read and agree to the terms

PROJECT

Required fields are indicated with a red bar.

Project Name:

Street Address:

City:

State:

ZIP:

[Privacy - Terms](#)

Electricity Utility Provider:

Gas Utility Provider:

[Help](#)

BUILDING OWNER

Please ensure all contact information is correct, as incentive checks will be sent to this address.

Company Name:

Billing Address:

City:

State:

ZIP:

▼

Customer Contact Name:

Phone:

E-mail:

ENERGY ADVISOR

Name:

E-mail:

Phone:

DESIGN TEAM INFORMATION

Only team members listed below with a valid e-mail address will be granted access to view or edit this application.

Architectural Firm

Company Name:

Contact Name:

Phone:

E-mail:

General Contractor

Company Name:

Contact Name:

Phone:

E-mail:

Mechanical Engineer

Company Name:

Contact Name:

Phone:

E-mail:

Electrical Engineer

Company Name:

Contact Name:

Phone:

E-mail:

Development Company

Company Name:

MSP Real Estate, Inc.

Contact Name:

Alyssa Klecker

Phone:

414-308-6142

E-mail:

aklecker@msphousing.com

Other Design Team

Company Name:

Contact Name:

Phone:

E-mail:

Company Name:

Contact Name:

Phone:

E-mail:

Company Name:

Contact Name:

Phone:

E-mail:


PROJECT SCHEDULE

Schematic Design

Start Date:

12/01/2022 

End Date:

04/01/2023 


Notes on Schedule:

Design Development

Start Date:

04/01/2023 

End Date:

08/01/2023 

Notes on Schedule:

Construction Documents

Start Date:

08/01/2023 

End Date:

10/01/2023 

Notes on Schedule:

Construction

Start Date:

02/01/2024 

End Date:

07/31/2025 

Notes on Schedule:

BUILDING INFORMATION

Select one or more of the applicable construction types.

New Construction

Building SF:

158000

Building Type:

Multifamily 

Percent Heated:

Percent Cooled:

Addition

Renovation

Year of Construction

Year of any Remodels:

Year of any Additions:

Completion:

2025

DESIGN PROCESS

- Design/Bid/Build Single Package
- Design/Bid/Build Multiple Package
- Design Build
- Unspecified

DESIGN CONSIDERATION OPTIONS

Willingness to Consider Energy-Saving Alternatives

Orientation/Building layout: Very Somewhat Not at all

Roof insulation: Very Somewhat Not at all

Wall insulation: Very Somewhat Not at all

Glazing type/Window design: Very Somewhat Not at all

Lighting design/controls: Very Somewhat Not at all

Daylighting controls: Very Somewhat Not at all

Heating/Cooling efficiencies: Very Somewhat Not at all

Load-responsive equipment: Very Somewhat Not at all

Outside air control: Very Somewhat Not at all

Other energy design alternatives:

Special considerations and other comments:

Where did you hear about Focus on Energy?

INCENTIVE IMPACT (REQUIRED)

The continued availability of Program incentives and analysis is strongly dependent on the impact each plays in improving the energy efficiency of the design. Please take a moment to answer the following questions.

During the planning stages, were potential incentives from Focus on Energy part of the budget discussion?

Very Somewhat No

Are you requesting Design Assistance services to:

Allow the Project to pursue improved energy efficiency?

Very Somewhat No

Enable the Project to keep proposed energy efficiency options in the Design?

Very Somewhat No

Aid in making energy efficiency design decisions?

Very Somewhat No

Play a role in helping the team understand how to best achieve energy efficiency within the construction budget?

Very Somewhat No

Note: Clicking the 'Submit' button will initiate Program review, but does not finalize this application.
Upon submission, you will receive an email confirmation including a link to allow you to make further modifications.

Submit



2023 Affordable Housing Fund-Tax Credit RFP

Supplemental Application Questions

MSP Real Estate Yellowstone Apartments

Response Submission Due Date: September 15, 2023 NOON

Instructions to Applicants:

Please respond ***briefly and succinctly*** to the questions below in-line, unless otherwise specified (e.g. additional documentation requested). Maximum 1/3 a page per question. Please use this Word document to record your answers and return this completed document to cddapplications@cityofmadison.com. Please cc: jspears@cityofmadison.com. We ask that you refrain from submitting additional documentation not specifically requested at this time or using alternative formats.

Questions:

A. Energy Efficiency

- 1. The City requires awardees to continue working with Focus on Energy's New Construction Energy Design Assistance throughout the building design process. The City will incorporate commitments into the term sheet.**

- a. Please attach the preliminary Whole Building Analysis and Results Report. If the Report is not yet available, please provide an update on the status and send ASAP no later than NOON on October 4, 2023.**

The Results Report is attached.

- b. What percentage of projected Energy Use Intensity (EUI) savings calculated over the baseline energy code is anticipated? (Note: 20% required.)**

We anticipate at least 20% EUI savings calculated over the baseline energy code. Our Bundle 1 from the Results Report is anticipating at least 22% EUI savings calculated over the baseline energy code.

- c. What is the highest feasible Bundle Level to which this project can commit?**

The project commits to achieving at least Bundle 1 in addition to all of the other various energy efficiency and sustainability features and certifications. As mentioned in the application, Yellowstone Apartments will be built to achieve the Wisconsin Green Built Gold Standard certification by incorporating various sustainable, energy efficient, and/or green building design techniques to score at least 240 points under the Wisconsin Green Built Scoring Checklist. As part of receiving the Wisconsin Green Built Gold Standard Certification, Yellowstone Apartments will also need to achieve the ENERGY STAR Multifamily New Construction certification.

B. Sustainable Building Design Elements

- 1. Please describe the Sustainable Building Design Elements and strategies that will be incorporated into the proposed project as referenced in the [AIA Framework for Design Excellence](#). Relevant elements and strategies include, but are not limited to**
 - a. Design for equitable communities**
 - b. Optimize energy use**
 - c. Protect and conserve water**
 - d. Optimize building space and material use**
 - e. Enhance indoor environmental quality (IEQ)**
 - f. Optimize operational and maintenance practices.**

Design for Equitable Communities: 1) Develop quality affordable housing in a Preferred Transit Oriented Development Area. 2) Partner with a black-owned, mental health outpatient clinic with a diverse staff. 3) Provide a combination of both market rate and affordable units. 4) Connect residents in our supportive housing units to supportive services. 5) Accessible features included.

Optimize Energy Use & Protect and Conserve Water: 1) Achieve the WI Green Built Gold Standard including ENERGY STAR Multifamily Certification. 2) Highly efficient shell/building envelope and windows with a U value of 0.35 or less. 3) Low flow showerheads and faucets. 4) ENERGY STAR qualified appliances and light fixtures.

Optimize Building Space and Material Use: 1) Thoroughly review unit plans and building plans to ensure efficient use of space. 2) Use durable, high-quality materials both indoors and outdoors.

Enhance Indoor Environmental Quality: 1) Lighting: Large windows and patio doors, light paint colors, ENERGY STAR light fixtures. 2) Thermal Comfort: Highly efficient shell, fans in all rooms, temp and window control. 3) Air Quality: Electric ranges, operable windows, all units will have individual HVAC units. 4) Happiness: Supportive services. Tot lot and community room. Multiple parks nearby for recreation. Community tenant on first floor with community services.

Optimize Operational and Maintenance Practices: Incorporate several energy efficient methods and high-quality, durable materials upfront to make the project more efficient in the long run.

C. Supportive Housing Units/Supportive Housing Partnerships

- 1. Housing Case Management and readiness during the three months prior to Certificate of Occupancy has been critical to ensuring that people experiencing homelessness have the support needed to complete the lease up process. Please describe plans detailed in the MOU with the Supportive Service Provider that will accommodate that critical lease up period?**

We are committed to working with our partners during this critical lease up period to ensure the project's supportive housing units are used to their fullest potential to provide

supportive services to residents under these supportive service programs, especially people experiencing homelessness. To this end, we begin contacting our supportive service partners 4-5 months prior to Certificate of Occupancy to share our supportive housing lease up coordination plan and discuss appropriate processes and procedures to maximize the probability of providing housing for this population. At this initial reach out, we also try to get a sense of where our partners' greatest needs are regarding unit types, etc. to coordinate between supportive service partners.

- 2. Please explain the supportive service unit breakdown, indicating any additional 50% units targeted for veterans.**

There are a total of 12 supportive service units at 30% CMI. Seven units at 60% CMI or below will be targeted to veterans.

D. Property Management

- 1. Elaborate on the description of your marketing strategies and partnerships with organizations that primarily serve Hispanic/Latino, Asian, and Black residents in order to effectively affirmatively market to these populations (Questions 14 and 15).**

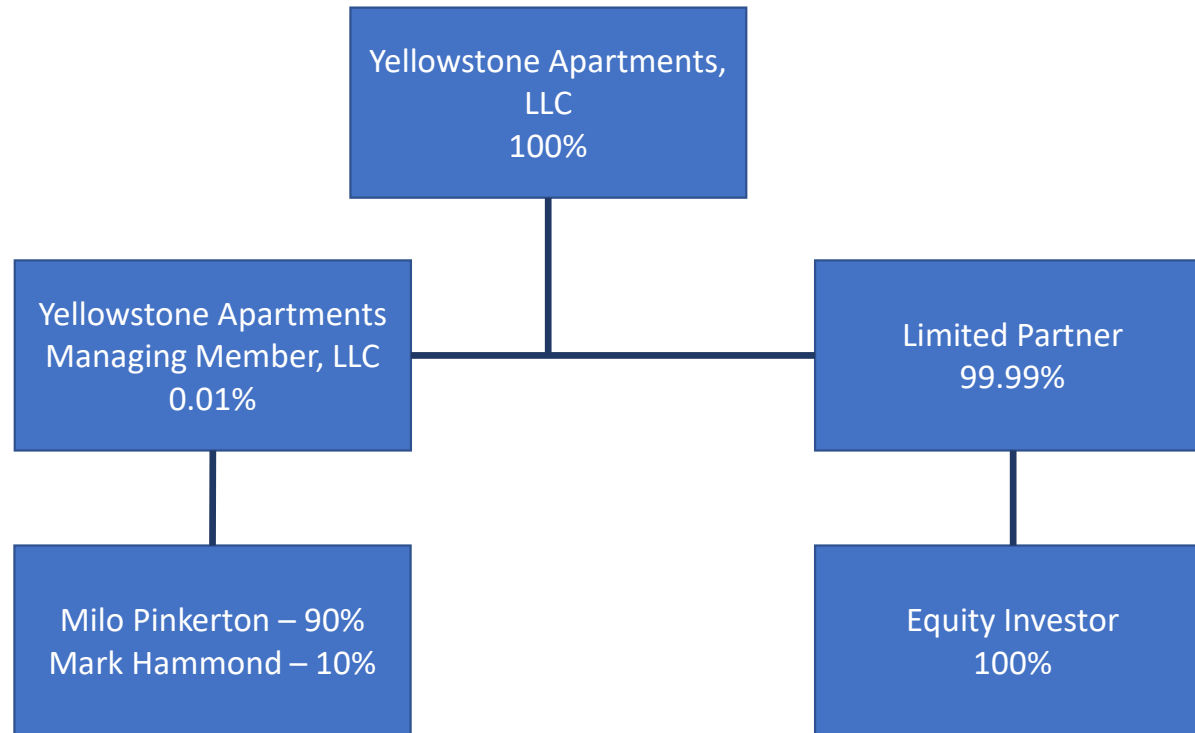
We reach out six months ahead of Certificate of Occupancy and then follow up a minimum of monthly throughout the leasing process with these organizations.

E. Financing

- 1. Debt Coverage Ratio at 1.51 in Year 1 signifies that a higher amount of first mortgage could be achieved and/or lower amount of City gap funding would be necessary. Please explain and/or resubmit the financial proforma demonstrating justifying the funding request.**

The Debt Coverage Ratio on all debt is 1.13 in Year 1. The noted 1.51 is only on the first mortgage without taking into account other soft financing. With the rent increase restrictions, we would not be comfortable with any lower Debt Coverage Ratio on the total debt for the project. The first mortgage was sized to make annual payments on the anticipated Dane County Affordable Housing Development Funds and City of Madison Affordable Housing Funds concurrently with the deferred developer fee while staying within our intended duration for repayment of deferred developer fee.

Yellowstone Apartments – Organizational Chart



ENERGY DESIGN ASSISTANCE

RESULTS REPORT

Yellowstone Apartments

Madison, WI



August 01, 2023
4023312 & 4023489

Prepared by



focus on energy[®]

Partnering with Wisconsin utilities

1 South Pinckney, Suite 340
Madison, WI 53703
phone: 877.939.1873
www.focusonenergy.com

in partnership with



your community energy company

Madison Gas & Electric

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Process Overview

The program process follows a clear methodology of information gathering, collaboration, and analysis in an integrated setting of formal meetings. The project team and Focus on Energy work together to understand how the building will use energy and where cost-effective savings can be realized through design.



Enrollment

- Complete the screening form online
- Connect with the appropriate rebate or incentive program



Analysis

- Conference call and email(s) with an energy consultant
- Review scope of work and goals
- Confirm use and size of building
- Determine mechanical system options
- Create list of strategies
- Energy analysis based on building characteristics
- Implementation costs, payback periods, rebate estimates



Results

- **Interactive energy goal setting**
- **Review baseline and strategies**
- **Review and revise bundles**
- **Complex strategies may be eligible for additional analysis**
- **Project team selects a bundle**



Verification

- Receive a Bundle Requirements Document that provides a guideline to reach your goal and projected rebate
- On-site verification of select projects
- Energy consultant issues report



Incentives

- The utility provider issues incentives for the strategies implemented in your project



Design Assistance Incentives

Incentives to Owner

A one-time incentive payment occurs following verification of strategies.

- Energy Design Assistance (EDA) incentives are based on how much energy is saved, compared to the baseline:
 - Owner Incentive: **\$0.075/kWh and \$0.87/Therm** saved
- Energy Design Assistance (EDA) incentives are limited to \$300,000 per project and \$400,000 per customer per calendar year for all Focus on Energy Incentives (prescriptive and custom).
- Energy Design Assistance (EDA) incentive cannot reduce the simple payback below 1 year.

Focus on Energy Incentives to Design Team

The Energy Design Assistance offering also provides an incentive to the Design Team for the following activities.

- Participation at formal meetings
- Transfer of building architectural/engineering design and submittal information to Focus on Energy
- Development of applicable energy conservation strategies' incremental costs (incremental as compared to the baseline)

Please note that the incentive is not intended to cover actual system(s) design or re-design associated with energy conservation strategies.

The incentive amount is \$0.0075/kWh and \$0.035/Therm saved and will be processed at the time of Design Intent decision. The Design Team incentive is capped at \$10,000 per project.

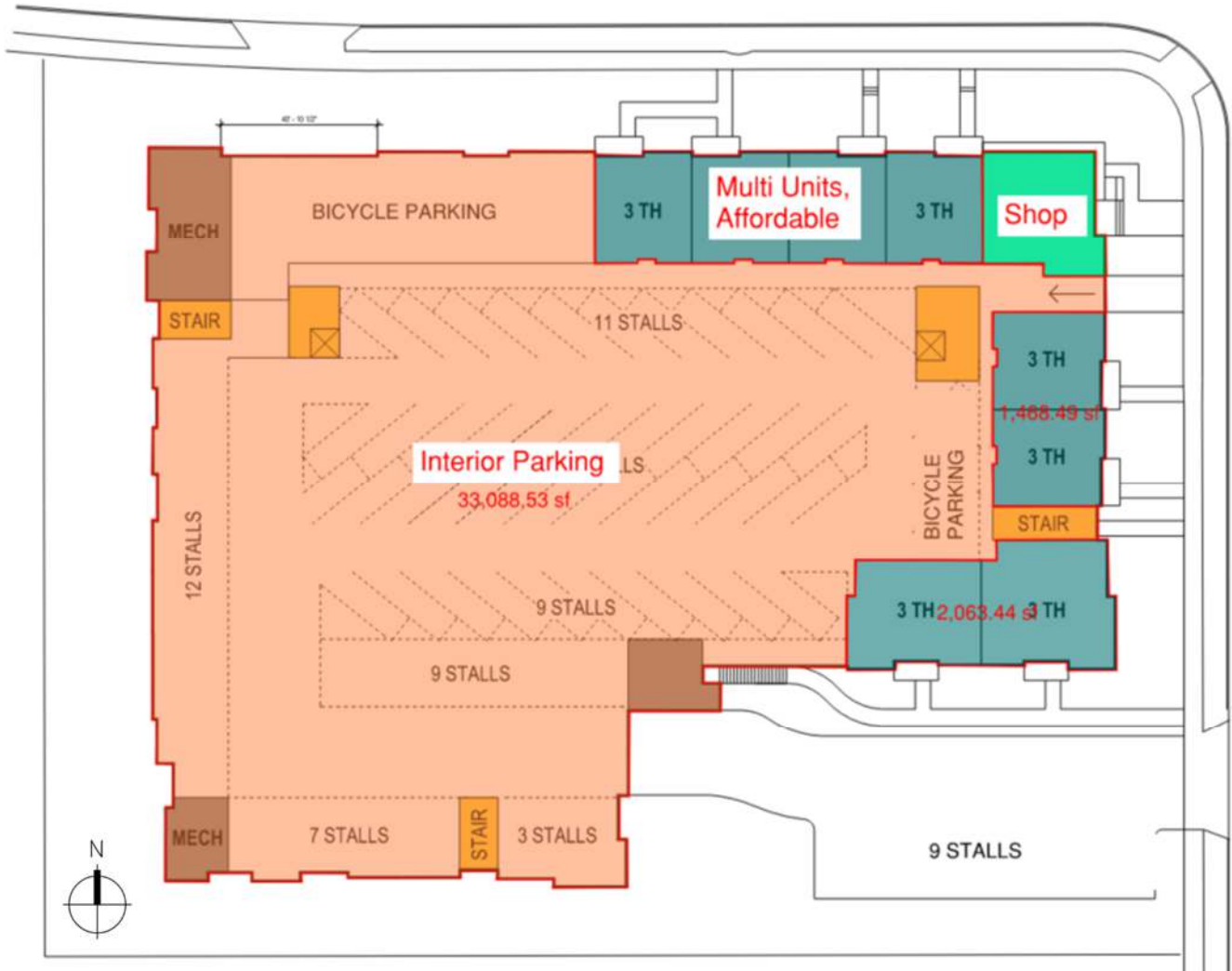


Building Summary

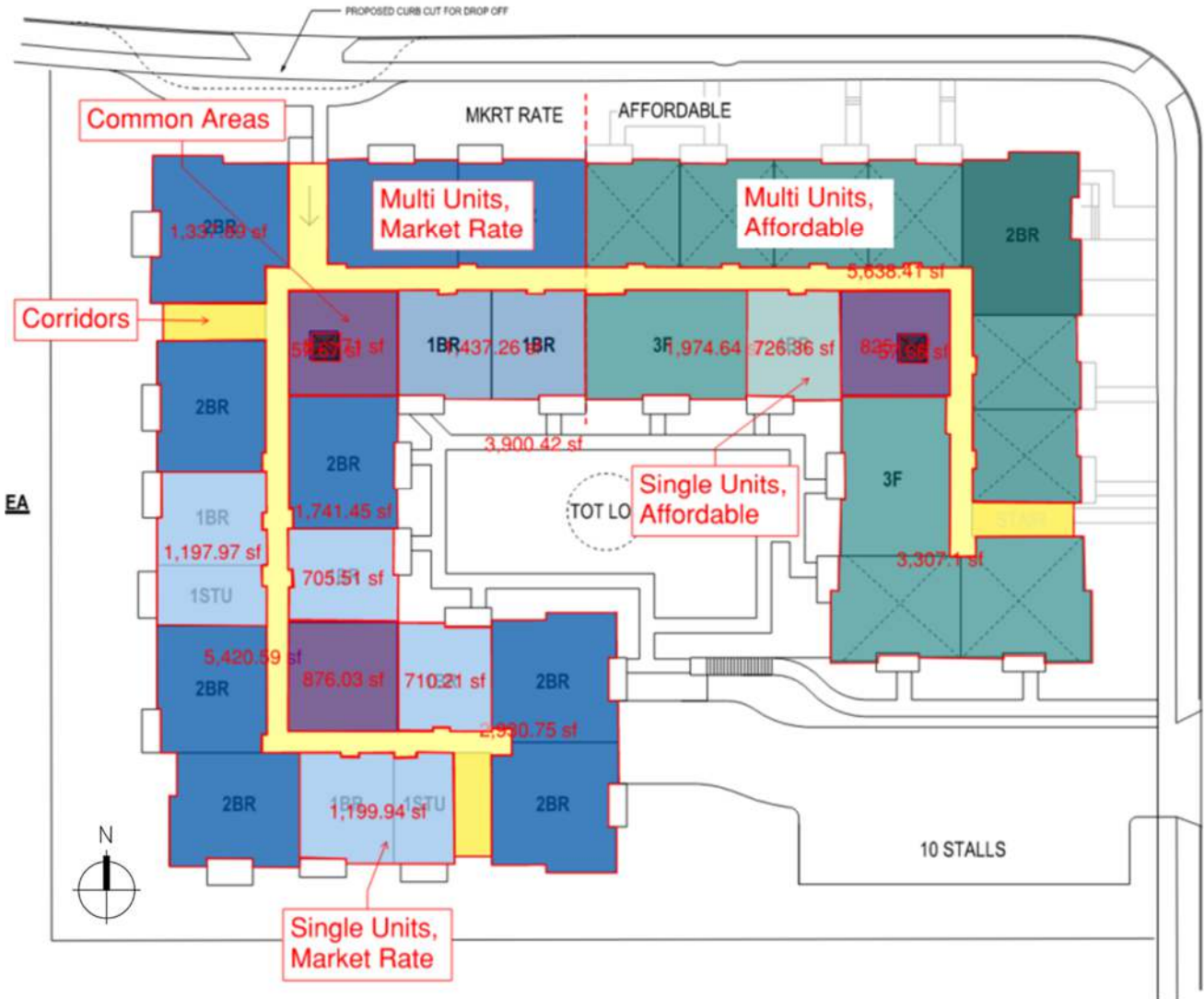
Building Summary		
Location	Madison, WI	
Narrative	Multi-Family Housing new construction	
Space Asset Areas	Area	Number of Stories
Market Rate Portion (109,000 ft²)		
Multi Units, Market Rate – 40 units	42,230 ft ²	5
Single Units, Market Rate – 47 units	31,430 ft ²	5
Interior Parking	18,330 ft ²	1
Corridors	10,150 ft ²	5
Common Areas	6,860 ft ²	5
Affordable Rate Portion (88,710 ft²)		
Multi Units, Affordable – 32 units	39,040 ft ²	6
Single Units, Affordable – 28 units	20,260 ft ²	5
Interior Parking	14,760 ft ²	1
Corridors	8,170 ft ²	5
Common Areas	5,520 ft ²	5
Shop	960 ft ²	1
Total	197,710 ft²	6
Exterior lighting	Market Rate 2,970 ft ² (Exterior Parking) 5,510 ft ² (Courtyard & Decks) 57 lin. ft. (Balconies)	Affordable Rate 2,400 ft ² (Exterior Parking) 4,430 ft ² (Courtyard & Decks) 44 lin. ft. (Balconies)
Systems Summary		
Envelope	Wall assembly: continuous 1" polyiso. @ R-24 - Potentially R-19 without the continuous polyiso. Roof assembly: R-30	
Glazing	Vinyl frames - COG U-0.3, SHGC 0.3, VT 0.6	
Lighting	LEDs throughout - OS is possible in common areas but not corridors/stairwells - OS to be installed in Interior Parking, aisleways and above cars	
Plug/Process	Energy Star appliances to be installed - Dishwasher, fridge, washer/dryer	
Service Water Heating	Gas boiler	
Elevators	2 traction	
Hours of Operation	Shop: M-F 9am to 5pm, Sa-Su 10am to 2pm All other areas: 24/7	
HVAC Scenario A: All HP	All Apartment Units: Mini-split heat pumps, all electric - Would like to install these in Interior Parking to eliminate backup heat → unable to be incentivized Interior Parking: Gas-fired unit heaters	

	Corridors, Common Areas, Shop: AHUs with gas furnace heating, DX cooling
HVAC Scenario B: VTACs + Splits	Single Unit Apartments: VTACs with gas furnace heating, DX cooling Multi Unit Apartments: Ducted split systems with gas furnace heating, DX cooling Interior Parking, Corridors, Common Areas, Shop: Same as Scenario A
HVAC Scenario C: HP + Splits	Single Unit Apartments: Mini-split heat pumps, all electric Multi Unit Apartments: Ducted split systems with gas furnace heating, DX cooling Interior Parking, Corridors, Common Areas, Shop: Same as Scenario A
Utilities	
Electric Utility	Madison Gas & Electric
Gas Utility	Madison Gas & Electric
Schedule	
Construction Documents Complete	10/01/2023
Construction Start	02/01/2024
Occupancy	07/31/2025
Baseline Reference	ASHRAE 90.1-2013 Appendix G
Other Notes	Market rate square footage ratio: 0.55, Affordable square footage ratio: 0.45 - Project #4023312 for Market Rate units - Project #4023489 for Affordable units Goals - Requirement of ~20% improvement in EUI for the Affordable side - <7 year payback

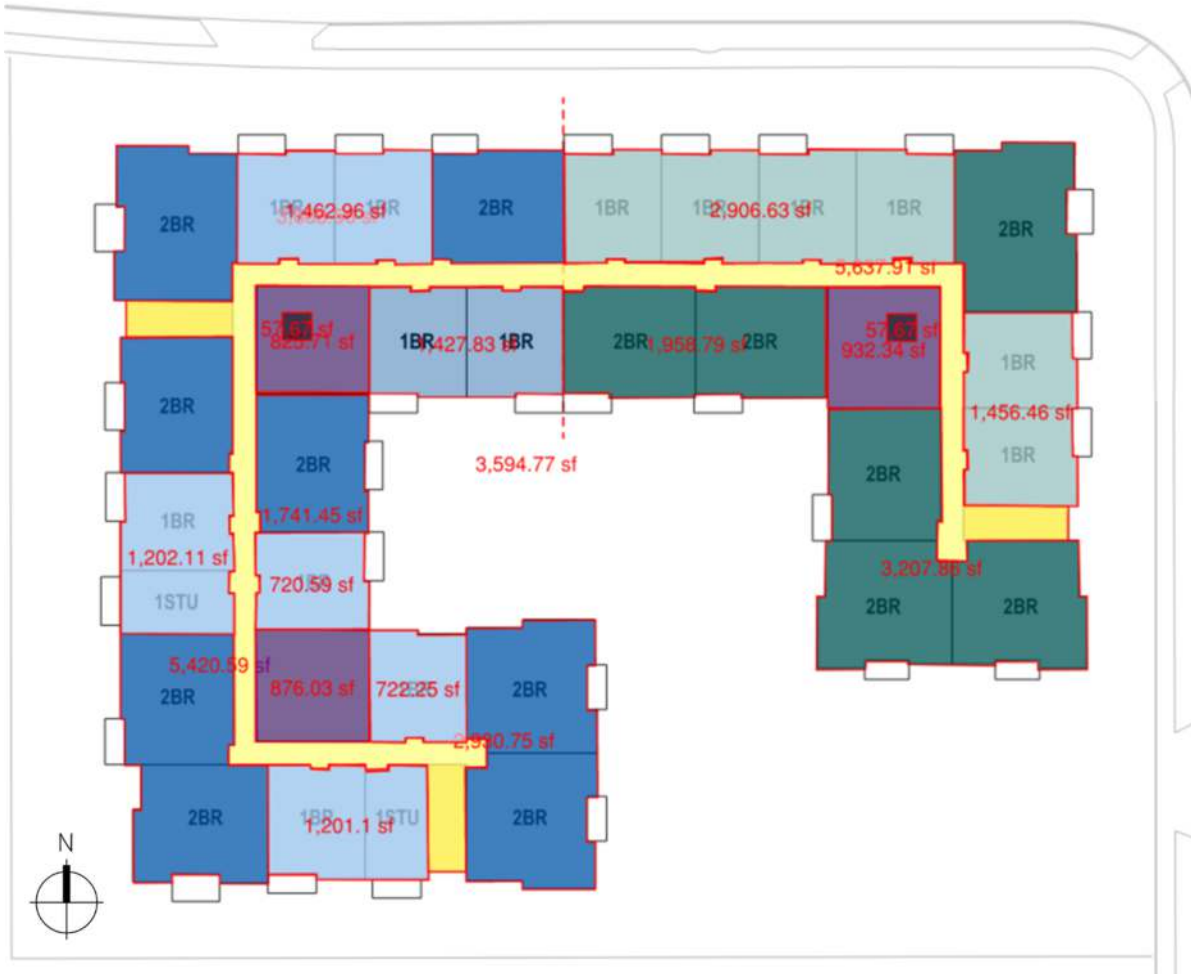
Building Plans



Ground Floor



Floor 1



Floors 2 – 4



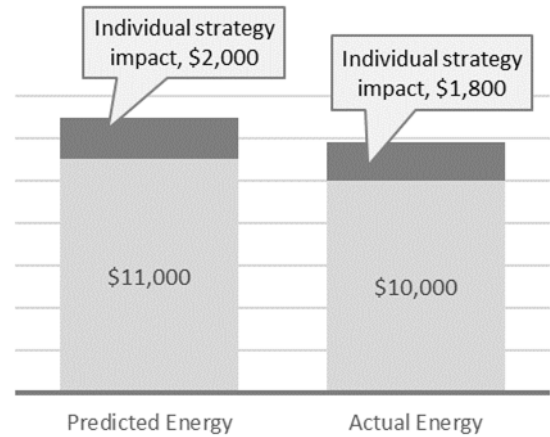
Floor 5

Key Terms and Concepts

Comparative Analysis

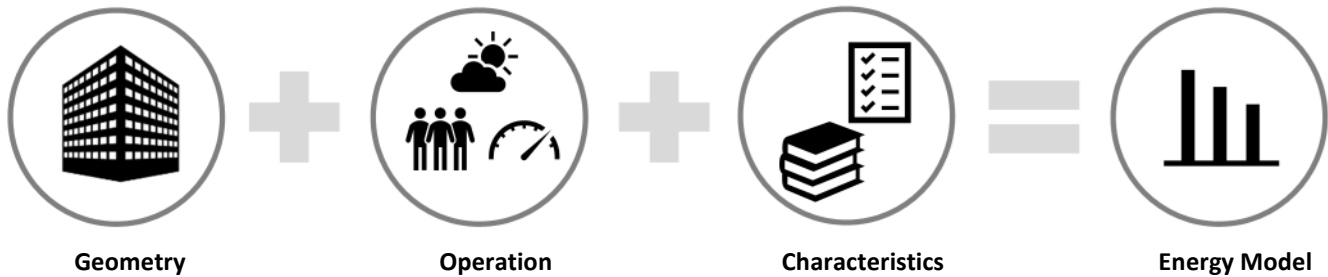
The building model provides insight into overall energy consumption; however, it is primarily designed to forecast savings. Like an MPG rating on a car, a comparative analysis can provide information on which options provide the most relative energy savings, but the actual operation and weather will have significant impacts on the overall energy consumption.

The predicted energy use of a building will be different than the actual energy use, due to assumptions and unknown characteristics. But the magnitude of an individual strategy impact will be similar in both cases and can be used to identify strategies with the greatest impact.



Energy Model

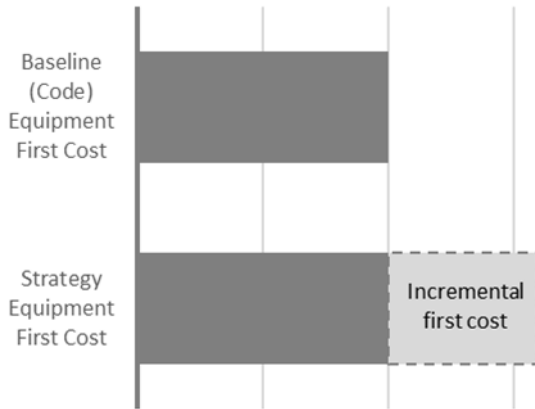
The energy model, using the simulation engine of DOE2, is used for comparative analysis of the building envelope, lighting, mechanical, and control options.



Baseline Energy Model: Used to establish a starting point for comparison. The **Geometry** is customized to the current project location, layout, use and size, and system. The **Operation** of weather, utility rates, plug loads, and expected occupancy are set based on the location, building type, and feedback from the project team. The **Characteristics** are defined by the program protocol (informed in large part by ASHRAE Standard 90.1) which prescribes minimum criteria values for envelope R-value, lighting power densities, HVAC equipment efficiencies and more.

Strategy Energy Model: Begins to incorporate aspects of the proposed design into the **Characteristics** portion of the energy model. The **Geometry** and **Operation** parts remain the same, but changes are made to the characteristics to see what the energy impacts are of improving things like the R-value in the wall or roof, reducing the lighting power in a particular space, or adding an airside total heat recovery system. The energy use of the Strategy Energy Model is subtracted from the energy use of the Baseline Energy Model to determine the amount of savings the strategy generates.

Incremental Costs



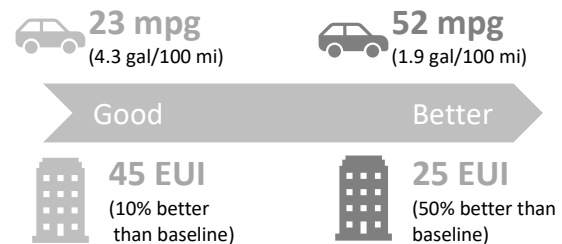
Incremental costs are intended to capture the additional cost, beyond the baseline case, that the project incurs by implementing the strategy. For example, an air-cooled chiller operating at Baseline conditions may cost \$100,000, while a more energy efficient air-cooled chiller costs \$160,000. \$60,000 would be the incremental cost associated with the improved air-cooled chiller.

As a part of this assistance Focus on Energy provides default incremental costs based on a variety of industry sources.

Energy Use Intensity (EUI)

EUI refers to Energy Use Intensity and is often measured in BTU per square foot per year. Since EUI is normalized both on size and timeframe, it provides the team with a good comparison between projects and their baseline. A lower value of EUI is a lower energy usage and better performance.

$$EUI = \frac{\text{Electrical Energy} + \text{Gas Energy}}{\text{Building Area}} = \frac{\text{Annual kWh} \times 3.412 + \text{Annual therms} \times 100}{\text{Total gross square feet}} \text{ kBtu/sf/yr}$$



A more efficient option will use less energy under similar operation.

Energy Conservation Bundles

Alternatives developed by the project team to maximize project goals which may include energy performance, simple payback, or long-term functionality.

Bundles are often configured and labeled in one of these ways:

	Bundle 1	Bundle 2	Bundle 3
<i>opt 1:</i>	Design	Design +	Max
<i>opt 2:</i>	VE	Design	Design +
<i>opt 3:</i>	Design	+Lighting alternate	+Envelope alternates +Lighting alternates
<i>opt 4:</i>	Design	+Alternate 1	+Alternate 2



This analysis should not be construed as correcting or overriding previous decisions or recommendations of the project team. The assistance is analytical in nature, using tools and methods not normally part of the customary design contract. The project team remains responsible for the implementation of strategies and final engineering of systems as well as for determining costs of various strategies.



Energy Analysis – Baseline and HVAC Scenarios

The following graphs show the baseline and proposed mechanical system scenarios, described below, with Energy Use Intensity on the left and Energy Use Costs on the right.

The utility baseline system consists of:

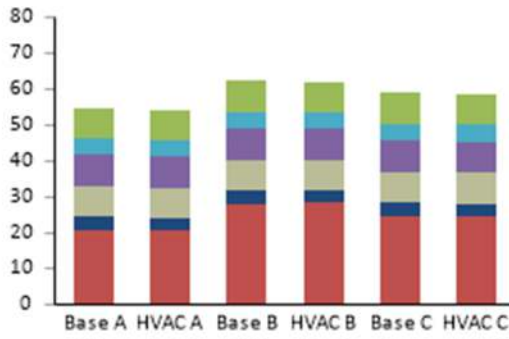
- Base A:
 - **Single Units, Multi Units:** Packaged terminal heat pump, electric backup heating
 - **Interior Parking:** Single zone air handler with gas furnace heating
 - **Corridors, Common Areas, Shop:** Single zone air handler with gas furnace heating and DX cooling
- Base B:
 - **Single Units, Multi Units:** Packaged terminal air conditioner with gas boiler heating and DX cooling
 - **Interior Parking:** Same as Base A
 - **Corridors, Common Areas, Shop:** Same as Base A
- Base C:
 - **Multi Units:** Packaged terminal air conditioner with gas boiler heating and DX cooling
 - **Single Units:** Packaged terminal heat pump, electric backup heating
 - **Interior Parking:** Same as Base A
 - **Corridors, Common Areas, Shop:** Same as Base A

The proposed mechanical system, without any additional strategies, consists of:

- HVAC A:
 - **Multi Units, Single Units:** Mini-split heat pumps, electric backup heating
 - **Interior Parking:** Gas unit heaters
 - **Corridors, Common Areas, Shop:** Single zone air handler with gas furnace heating and DX cooling
- HVAC B:
 - **Multi Units:** Ducted split system with gas furnace heating and DX cooling
 - **Single Units:** VTAC with gas furnace heating and DX cooling
 - **Corridors, Common Areas, Shop:** Same as HVAC A
 - **Interior Parking:** Same as HVAC A
- HVAC C:
 - **Multi Units:** Same as HVAC B
 - **Single Units:** Same as HVAC A
 - **Interior Parking:** Same as HVAC A
 - **Corridors, Common Areas, Shop:** Same as HVAC A

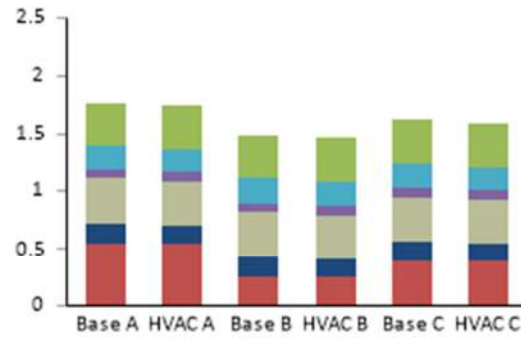
Market Rate

Energy Use Intensity (kBtu/ft²/yr)



	Base A	HVAC A	Base B	HVAC B	Base C	HVAC C
Heating	21	20.9	28.3	28.7	25	25.2
Cooling	3.9	3.4	3.9	3.4	3.9	3.4
Fans & Pumps	8.4	8.4	8.5	8.4	8.5	8.4
SWH	8.8	8.8	8.8	8.8	8.8	8.8
Refrigeration	0	0	0	0	0	0
Lighting	4.5	4.5	4.5	4.5	4.5	4.5
Equipment	8	8	8	8	8	8
Total	54.5	53.9	62	61.8	58.6	58.3

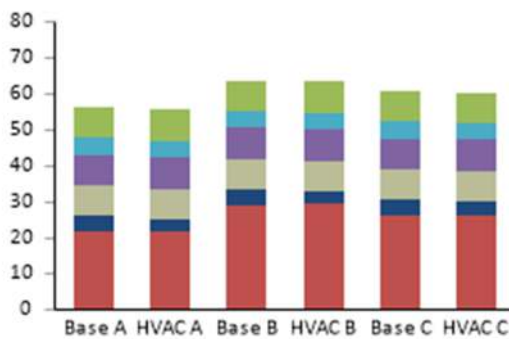
Energy Use Costs (\$/ft²)



	Base A	HVAC A	Base B	HVAC B	Base C	HVAC C
Heating	0.56	0.56	0.27	0.27	0.4	0.4
Cooling	0.18	0.16	0.18	0.16	0.18	0.16
Fans & Pumps	0.38	0.38	0.39	0.38	0.39	0.38
SWH	0.08	0.08	0.08	0.08	0.08	0.08
Refrigeration	0	0	0	0	0	0
Lighting	0.2	0.2	0.2	0.2	0.2	0.2
Equipment	0.36	0.36	0.36	0.36	0.36	0.36
Total	1.77	1.74	1.48	1.45	1.61	1.58

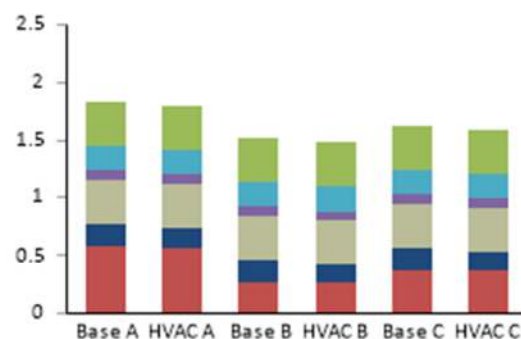
Affordable Rate

Energy Use Intensity (kBtu/ft²/yr)



	Base A	HVAC A	Base B	HVAC B	Base C	HVAC C
Heating	22.3	22.1	29.5	29.8	26.7	26.9
Cooling	4.2	3.6	4.2	3.6	4.2	3.6
Fans & Pumps	8.4	8.4	8.5	8.4	8.4	8.4
SWH	8.7	8.7	8.7	8.7	8.7	8.7
Refrigeration	0	0	0	0	0	0
Lighting	4.6	4.6	4.6	4.6	4.6	4.6
Equipment	8	8	8	8	8	8
Total	56.2	55.4	63.4	63.1	60.6	60.2

Energy Use Costs (\$/ft²)



	Base A	HVAC A	Base B	HVAC B	Base C	HVAC C
Heating	0.6	0.59	0.28	0.28	0.39	0.39
Cooling	0.19	0.16	0.19	0.16	0.19	0.16
Fans & Pumps	0.38	0.38	0.39	0.38	0.38	0.38
SWH	0.08	0.08	0.08	0.08	0.08	0.08
Refrigeration	0	0	0	0	0	0
Lighting	0.21	0.21	0.21	0.21	0.21	0.21
Equipment	0.36	0.36	0.36	0.36	0.36	0.36
Total	1.82	1.79	1.5	1.48	1.62	1.59

Key Points

- The HVAC A scenarios show less Energy Use Intensity at the site in comparison to the other two scenarios since it is an all-electric heated solution, while HVAC B and HVAC C use gas heat and therefore include vented flue gas BTUs.
- The HVAC B scenarios show lower Energy Use Costs than the HVAC A and HVAC C scenarios since gas is less costly on a per BTU basis than electricity.
- Each scenario has varying opportunity for further energy reduction through additional energy conservation measures; these will be evaluated via the bundling exercises as part of this program.

Energy Analysis – DRAFT Bundle Summary Results

Three bundles have been pre-populated with energy efficiency strategies to facilitate discussion during the results meeting using the following guidelines:

- Bundles 1, 4, and 7 include basic energy efficiency strategies focused on a payback of less than 7 years.
- Bundles 2, 5, and 8 build upon Bundles 1, 2, and 3 with additional energy efficiency strategies included.
- Bundles 3, 6, and 9 include maximum energy efficiency strategies.

These preliminary strategy selections can be found in Appendix A. These selections are expected to be revised during the results meeting after discussion with the design team. Updated results will be published in the meeting minutes.

MARKET RATE: Bundled Annual Savings

Bundle Description	Peak kW Savings	% Peak kW Savings	kWh Savings	% kWh Savings	Gas Savings (Therm)	% Gas Savings	Energy Cost Savings
Bundle 1	23	18	198,375	18	5,375	25	\$35,759
Bundle 2	33	26	259,344	23	5,644	26	\$45,463
Bundle 3	39	31	314,951	28	5,947	28	\$54,357
Bundle 4	23	18	139,985	18	10,702	26	\$31,671
Bundle 5	31	25	204,048	26	11,024	27	\$41,907
Bundle 6	37	29	233,211	29	13,155	33	\$48,412
Bundle 7	23	18	165,517	18	8,173	26	\$33,273
Bundle 8	32	25	228,084	24	8,475	27	\$43,253
Bundle 9	38	30	269,090	29	9,964	31	\$50,994

MARKET RATE: Simple Payback with Incentive

Bundle Description	Energy Cost Savings	Incremental First Cost	Electric Incentive	Gas Incentive	Total Incentive	Payback in Years (after incentive)
Bundle 1	\$35,759	\$174,165	\$14,878	\$4,676	\$19,554	4.3
Bundle 2	\$45,463	\$254,803	\$19,451	\$4,910	\$24,361	5.1
Bundle 3	\$54,357	\$365,554	\$23,621	\$5,174	\$28,795	6.2
Bundle 4	\$31,671	\$67,868	\$10,499	\$9,311	\$19,810	1.5
Bundle 5	\$41,907	\$141,658	\$15,304	\$9,591	\$24,895	2.8
Bundle 6	\$48,412	\$255,776	\$17,491	\$11,445	\$28,936	4.7
Bundle 7	\$33,273	\$111,771	\$12,414	\$7,111	\$19,525	2.8
Bundle 8	\$43,253	\$188,483	\$17,106	\$7,373	\$24,479	3.8
Bundle 9	\$50,994	\$302,617	\$20,182	\$8,669	\$28,851	5.4

MARKET RATE: Energy Use Intensity

Bundle Description	Energy Use Intensity (kBTU/sf/yr)	EUI Reduction Over Baseline (%)
Bundle 1	43.4	22
Bundle 2	41.2	26
Bundle 3	39.2	30
Bundle 4	47.8	24
Bundle 5	45.5	28
Bundle 6	42.6	32
Bundle 7	46.0	24
Bundle 8	43.7	27
Bundle 9	41.1	32

AFFORDABLE RATE: Bundled Annual Savings

Bundle Description	Peak kW Savings	% Peak kW Savings	kWh Savings	% kWh Savings	Gas Savings (Therm)	% Gas Savings	Energy Cost Savings
Bundle 1	20	18	161,120	17	4,298	24	\$28,979
Bundle 2	29	26	215,014	23	4,381	24	\$37,413
Bundle 3	34	31	261,889	28	4,674	26	\$44,950
Bundle 4	20	18	110,718	17	8,780	26	\$25,343
Bundle 5	28	25	165,738	25	8,923	26	\$34,004
Bundle 6	32	29	189,326	29	10,808	32	\$39,417
Bundle 7	20	18	129,625	17	6,935	25	\$26,557
Bundle 8	28	25	184,154	24	7,059	25	\$35,122
Bundle 9	33	30	216,758	29	8,466	30	\$41,489

AFFORDABLE RATE: Simple Payback with Incentive

Bundle Description	Energy Cost Savings	Incremental First Cost	Electric Incentive	Gas Incentive	Total Incentive	Payback in Years (after incentive)
Bundle 1	\$28,979	\$135,719	\$12,084	\$3,739	\$15,823	4.1
Bundle 2	\$37,413	\$197,755	\$16,126	\$3,811	\$19,937	4.8
Bundle 3	\$44,950	\$280,659	\$19,642	\$4,066	\$23,708	5.7
Bundle 4	\$25,343	\$80,105	\$8,304	\$7,639	\$15,943	2.5
Bundle 5	\$34,004	\$136,628	\$12,430	\$7,763	\$20,193	3.4
Bundle 6	\$39,417	\$222,649	\$14,199	\$9,403	\$23,602	5.0
Bundle 7	\$26,557	\$98,034	\$9,722	\$6,033	\$15,755	3.1
Bundle 8	\$35,122	\$156,440	\$13,812	\$6,141	\$19,953	3.9
Bundle 9	\$41,489	\$242,471	\$16,257	\$7,365	\$23,622	5.3

AFFORDABLE RATE: Energy Use Intensity

Bundle Description	Energy Use Intensity (kBTU/sf/yr)	EUI Reduction Over Baseline (%)
Bundle 1	45.1	20
Bundle 2	43.0	23
Bundle 3	40.8	27
Bundle 4	49.2	22
Bundle 5	47.0	26
Bundle 6	43.9	31
Bundle 7	47.8	21
Bundle 8	45.6	25
Bundle 9	42.7	30



Verification

Verification is the next stage for the Design Assistance program. Verification seeks to assure that one of the bundles is implemented.

The process will be laid out in detail in the coming weeks, but it generally includes the following:

- Project team notifies Focus on Energy of the bundle selection.
- Focus on Energy sends a Bundle Requirements Document to the project team, tailored to the selected bundle strategies.
- Focus on Energy processes the design team incentive and sends payment to design team lead.
- Project team sends Construction Documents to Focus on Energy, electronic format preferred, two months prior to construction completion.
- Project team sends State of Wisconsin approved COMcheck submittal to Focus on Energy, two months prior to construction completion.
- Project team sends requested equipment submittals to Focus on Energy, two months prior to construction completion.
- Field verification of select projects for installed strategies once the building is completed and occupied*.
- Report by Focus on Energy as to status of strategy implementation.
- Focus on Energy provides incentive payment.

*Note that 10% of the Energy Design Assistance projects will be selected for on-site verification. The owner will be notified by Focus on Energy if the project has been selected upon construction completion. For projects not selected for on-site verification, the Construction Documents, State of Wisconsin approved COMcheck submission, and the equipment submittals will be used to verify the installed strategies.

If some of the chosen strategies are not implemented within the selected bundle, Focus on Energy may choose to adjust the incentive amount.

Appendix A. Detailed Strategy Results

MARKET RATE Results for HVAC A: All HP

Strategy	Annual Savings			Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3	
	Peak kW	kWh	Gas (Therm)						Energy Cost
Mechanical									
Mini-split Heat Pumps (All Units)									
Electronically commutated motor	2.1	13,669	0	\$2,119	\$9,470	4.5		x	x
5% improved heat pump cooling efficiency	2.3	8,301	0	\$1,287	\$6,848	5.3	x		
10% improved heat pump cooling efficiency	4.4	15,593	0	\$2,418	\$13,696	5.7		x	
20% improved heat pump cooling efficiency	8.1	27,675	0	\$4,290	\$27,392	6.4			x
30% improved heat pump cooling efficiency	11.2	36,972	0	\$5,732	\$41,087	7.2			
5% improved heat pump heating efficiency	0	7,474	0	\$1,159	\$4,553	3.9	x	x	x
10% improved heat pump heating efficiency	0	14,187	0	\$2,201	\$9,106	4.1			
20% improved heat pump heating efficiency	0	25,582	0	\$3,966	\$18,212	4.6			
30% improved heat pump heating efficiency	0	34,644	0	\$5,370	\$27,319	5.1			
Programmable thermostats for Multi Units, Market Rate	0.1	12,541	0	\$1,946	\$1,127	0.6	x		
Communicating thermostats for Multi Units, Market Rate	1.9	23,473	0	\$3,640	\$3,988	1.1		x	
Smart thermostats for Multi Units, Market Rate	2.9	25,861	0	\$4,009	\$7,109	1.8			x
Programmable thermostats for Single Units, Market Rate	0	9,926	0	\$1,538	\$1,325	0.9	x		
Communicating thermostats for Single Units, Market Rate	1.5	18,521	0	\$2,872	\$4,685	1.6		x	
Smart thermostats for Single Units, Market Rate	2.2	20,378	0	\$3,161	\$8,353	2.6			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	264	\$246	\$524	2.1			x
90% efficient gas furnace	0	0	1,203	\$1,121	\$2,888	2.6			
95% efficient gas furnace	0	0	1,709	\$1,593	\$4,365	2.7			
Sensible heat recovery	-0.1	-2,130	5,287	\$4,597	\$12,902	2.8			
Total heat recovery	-0.4	-4,283	5,844	\$4,785	\$12,924	2.7			
CO sensor control of outdoor air	0	6,709	3,638	\$4,436	\$0	0.0	x	x	x
Direct-fired furnace	0	0	2,165	\$2,018	\$0	0.0			
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.2	8,642	-96	\$1,252	\$2,187	1.7		x	x
Variable speed fan at 67% minimum flow	5.1	35,227	-663	\$4,841	\$4,308	0.9			
Variable speed fan at 30% minimum flow	9.3	61,082	-1,185	\$8,364	\$4,308	0.5			
Fan system power at 0.85 BHP/1000cfm	1.1	7,108	-76	\$1,032	\$1,048	1.0			
5% improved DX cooling efficiency	0.3	397	0	\$62	\$3,154	50.9	x	x	x

Strategy	Annual Savings			Energy Cost	Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)						
10% improved DX cooling efficiency	0.5	755	0	\$119	\$6,309	53.0			
20% improved DX cooling efficiency	0.9	1,369	0	\$213	\$12,617	59.2			
30% improved DX cooling efficiency	1.2	1,872	0	\$291	\$18,926	65.0			
High efficiency DX compressor part load performance	0.8	1,448	0	\$226	\$12,197	54.0			
Premium efficiency DX compressor part load performance	2.5	4,053	0	\$629	\$24,814	39.4			
82% efficient gas furnace	0	0	23	\$22	\$486	22.1	x	x	x
90% efficient gas furnace	0	0	105	\$97	\$2,680	27.6			
95% efficient gas furnace	0	0	149	\$139	\$4,051	29.1			
Sensible heat recovery	0	-594	628	\$493	\$12,053	24.4			
Architectural									
Multi Units, Market Rate									
Wall R-16	0	1,098	0	\$172	\$897	5.2			
Wall R-20	0.2	10,257	0	\$1,592	\$10,461	6.6	x	x	
Wall R-24	0.3	16,256	0	\$2,521	\$20,025	7.9			x
Roof R-24	0	1,891	0	\$293	\$2,216	7.6			
Roof R-30	0.1	4,318	0	\$671	\$6,416	9.6	x	x	x
Roof R-36	0.1	5,912	0	\$917	\$10,615	11.6			
Roof R-40	0.2	6,706	0	\$1,041	\$13,415	12.9			
Roof R-50	0.2	8,119	0	\$1,259	\$20,414	16.2			
Glazing high solar gain, non-metal frame	0.4	18,554	0	\$2,876	\$0	0.0			
Glazing medium solar gain, high transparency, non-metal frame	2.9	16,799	0	\$2,606	\$8,307	3.2	x	x	
Glazing medium solar gain, non-metal frame	2.9	16,799	0	\$2,606	\$4,141	1.6			
Glazing high solar gain w/ argon, non-metal frame	0.6	26,028	0	\$4,034	\$2,474	0.6			
Glazing medium solar gain, high transparency w/ argon, non-metal frame	2.9	24,754	0	\$3,839	\$10,806	2.8			x
Glazing medium solar gain w/ argon, non-metal frame	2.9	24,754	0	\$3,839	\$6,640	1.7			
Single Units, Market Rate									
Wall R-16	0	917	0	\$142	\$751	5.3			
Wall R-20	0.2	8,546	0	\$1,326	\$8,767	6.6	x	x	
Wall R-24	0.3	13,568	0	\$2,103	\$16,782	8.0			x
Roof R-24	0	1,391	0	\$218	\$1,650	7.6			
Roof R-30	0.1	3,196	0	\$496	\$4,775	9.6	x	x	x
Roof R-36	0.1	4,380	0	\$680	\$7,900	11.6			
Roof R-40	0.1	4,968	0	\$771	\$9,984	12.9			
Roof R-50	0.1	6,018	0	\$935	\$15,193	16.2			
Glazing high solar gain, non-metal frame	0.3	15,492	0	\$2,401	\$0	0.0			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Glazing medium solar gain, high transparency, non-metal frame	2.4	14,092	0	\$2,186	\$6,988	3.2	x	x	
Glazing medium solar gain, non-metal frame	2.4	14,092	0	\$2,186	\$3,483	1.6			
Glazing high solar gain w/ argon, non-metal frame	0.5	21,701	0	\$3,366	\$2,082	0.6			
Glazing medium solar gain, high transparency w/ argon, non-metal frame	2.4	20,729	0	\$3,215	\$9,090	2.8			x
Glazing medium solar gain w/ argon, non-metal frame	2.4	20,729	0	\$3,215	\$5,586	1.7			
Corridors									
Roof R-24	0	13	31	\$31	\$533	17.2			
Roof R-30	0	28	72	\$74	\$1,542	20.8	x	x	x
Roof R-36	0	37	98	\$98	\$2,551	26.0			
Roof R-40	0	41	111	\$111	\$3,224	29.0			
Roof R-50	0	50	134	\$132	\$4,906	37.2			
Common Areas									
Roof R-24	0	9	20	\$21	\$360	17.1			
Roof R-30	0	19	46	\$47	\$1,042	22.2	x	x	x
Roof R-36	0	25	63	\$65	\$1,724	26.5			
Roof R-40	0	29	71	\$72	\$2,179	30.3			
Roof R-50	0	35	86	\$85	\$3,316	39.0			
Lighting									
Facility									
Exterior tradable site lighting reduced to 2.76 kW	0	1,344	0	\$208	\$466	2.2			
Exterior tradable site lighting reduced to 2.45 kW	0	2,688	0	\$418	\$931	2.2			
Exterior tradable site lighting reduced to 2.15 kW	0	4,032	0	\$626	\$1,397	2.2	x		
Exterior tradable site lighting reduced to 1.84 kW	0	5,376	0	\$833	\$1,862	2.2		x	
Exterior tradable site lighting reduced to 1.53 kW	0	6,720	0	\$1,043	\$2,328	2.2			x
Exterior tradable site lighting reduced to 1.23 kW	0	8,065	0	\$1,250	\$2,793	2.2			
Exterior tradable site lighting reduced to 0.92 kW	0	9,408	0	\$1,459	\$3,259	2.2			
Exterior tradable site lighting reduced to 0.61 kW	0	10,752	0	\$1,666	\$3,724	2.2			
Multi Units, Market Rate									
Lighting power in Multi Units, Market Rate reduced to 0.96 W/ft ²	0.3	3,304	0	\$514	\$2,820	5.5			
Lighting power in Multi Units, Market Rate reduced to 0.86 W/ft ²	0.5	6,592	0	\$1,023	\$5,641	5.5			
Lighting power in Multi Units, Market Rate reduced to 0.75 W/ft ²	0.8	9,883	0	\$1,533	\$8,282	5.4	x		
Lighting power in Multi Units, Market Rate reduced to 0.64 W/ft ²	1	13,178	0	\$2,042	\$10,741	5.3		x	

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Lighting power in Multi Units, Market Rate reduced to 0.54 W/ft ²	1.3	16,448	0	\$2,550	\$13,019	5.1			x
Lighting power in Multi Units, Market Rate reduced to 0.43 W/ft ²	1.6	19,718	0	\$3,056	\$15,115	4.9			
Single Units, Market Rate									
Lighting power in Single Units, Market Rate reduced to 0.96 W/ft ²	0.2	2,447	0	\$379	\$2,099	5.5			
Lighting power in Single Units, Market Rate reduced to 0.86 W/ft ²	0.4	4,882	0	\$756	\$4,199	5.6			
Lighting power in Single Units, Market Rate reduced to 0.75 W/ft ²	0.6	7,334	0	\$1,138	\$6,164	5.4	x		
Lighting power in Single Units, Market Rate reduced to 0.64 W/ft ²	0.8	9,773	0	\$1,515	\$7,994	5.3		x	
Lighting power in Single Units, Market Rate reduced to 0.54 W/ft ²	0.9	12,219	0	\$1,896	\$9,689	5.1			x
Lighting power in Single Units, Market Rate reduced to 0.43 W/ft ²	1.1	14,651	0	\$2,271	\$11,250	5.0			
Corridors									
Occupancy sensor controls, 25% of space	0.2	1,902	-22	\$275	\$475	1.7			
Occupancy sensor controls, 50% of space	0.5	3,804	-45	\$552	\$950	1.7			
Occupancy sensor controls, 75% of space	0.7	5,347	-64	\$771	\$1,425	1.8			
Occupancy sensor controls, 100% of space	0.9	6,529	-78	\$941	\$1,900	2.0			
Lighting power in Corridors reduced to 0.46 W/ft ²	0.4	2,534	-28	\$370	\$678	1.8			
Lighting power in Corridors reduced to 0.41 W/ft ²	0.8	5,069	-57	\$734	\$1,356	1.8			
Lighting power in Corridors reduced to 0.36 W/ft ²	1.3	7,614	-88	\$1,101	\$1,991	1.8	x		
Lighting power in Corridors reduced to 0.31 W/ft ²	1.7	10,174	-120	\$1,467	\$2,582	1.8		x	
Lighting power in Corridors reduced to 0.26 W/ft ²	2.1	12,745	-155	\$1,833	\$3,129	1.7			x
High-end trim, 10% lighting power reduction	0.4	2,534	-28	\$370	\$600	1.6			
Common Areas									
Occupancy sensor controls, 25% of space	0.2	1,046	-13	\$152	\$321	2.1			
Occupancy sensor controls, 50% of space	0.3	2,089	-27	\$299	\$642	2.1			
Occupancy sensor controls, 75% of space	0.5	3,135	-41	\$448	\$963	2.1			
Occupancy sensor controls, 100% of space	0.6	4,179	-55	\$602	\$1,284	2.1		x	x
Vacancy sensor controls, 25% of space	0.2	1,219	-16	\$177	\$321	1.8			
Vacancy sensor controls, 50% of space	0.4	2,438	-32	\$349	\$642	1.8			
Vacancy sensor controls, 75% of space	0.6	3,658	-47	\$525	\$963	1.8			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Vacancy sensor controls, 100% of space	0.8	4,876	-64	\$697	\$1,284	1.8			
Lighting power in Common Areas reduced to 0.46 W/ft ²	0.3	1,397	-17	\$203	\$458	2.3			
Lighting power in Common Areas reduced to 0.41 W/ft ²	0.6	2,793	-34	\$403	\$916	2.3			
Lighting power in Common Areas reduced to 0.36 W/ft ²	0.9	4,189	-52	\$603	\$1,345	2.2	x		
Lighting power in Common Areas reduced to 0.31 W/ft ²	1.2	5,585	-70	\$803	\$1,745	2.2		x	
Lighting power in Common Areas reduced to 0.26 W/ft ²	1.4	6,979	-89	\$1,000	\$2,115	2.1			x
High-end trim, 10% lighting power reduction	0.3	1,397	-17	\$203	\$405	2.0			
Interior Parking									
Occupancy sensor controls, 50% of space	0.2	1,967	-19	\$288	\$686	2.4			
Occupancy sensor controls, 75% of space	0.4	4,425	-43	\$648	\$1,544	2.4			
Occupancy sensor controls, 100% of space	0.7	6,884	-69	\$1,003	\$2,401	2.4	x	x	x
Lighting power in Interior Parking reduced to 0.19 W/ft ²	0.4	2,514	-24	\$367	\$1,224	3.3			
Lighting power in Interior Parking reduced to 0.17 W/ft ²	0.7	5,029	-49	\$736	\$2,449	3.3			
Lighting power in Interior Parking reduced to 0.15 W/ft ²	1.1	7,544	-75	\$1,103	\$3,595	3.3	x		
Lighting power in Interior Parking reduced to 0.13 W/ft ²	1.4	10,060	-102	\$1,466	\$4,662	3.2		x	
Lighting power in Interior Parking reduced to 0.11 W/ft ²	1.8	12,575	-131	\$1,827	\$5,651	3.1			x
Lighting power in Interior Parking reduced to 0.08 W/ft ²	2.1	15,090	-160	\$2,190	\$6,561	3.0			
High-end trim, 10% lighting power reduction	0.4	2,514	-24	\$367	\$1,083	3.0			
Plug/Process									
Facility									
Traction elevator, gearless	0.2	1,025	0	\$159	\$12,113	76.2	x		
Traction elevator, machine roomless	0.5	2,153	0	\$337	\$21,197	62.9		x	x
Traction elevator, regenerative	0.7	2,892	0	\$449	\$42,394	94.4			
Elevator permanent magnet motor	0.1	363	0	\$57	\$15,141	100+			
Multi Units, Market Rate									
Clothes washers, ENERGY STAR minimum certification efficiency	1.4	8,755	25	\$1,383	\$7,912	5.7	x	x	
Clothes washers, ENERGY STAR high efficiency	1.6	10,263	25	\$1,615	\$19,780	12.2			x
Clothes washers, ENERGY STAR premium efficiency	2.1	12,946	28	\$2,038	\$31,648	15.5			
Clothes dryers, ENERGY STAR minimum certification efficiency	0.2	1,201	0	\$187	\$11,868	63.5	x	x	
Clothes dryers, ENERGY STAR high efficiency	0.5	3,129	0	\$486	\$27,692	57.0			x
Clothes dryers, ENERGY STAR premium efficiency	1.1	6,657	0	\$1,034	\$29,670	28.7			
Dishwashers, ENERGY STAR premium efficiency	0.1	819	105	\$225	\$17,406	77.4		x	x

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Refrigerators, ENERGY STAR minimum certification efficiency	0.4	2,454	0	\$382	\$11,868	31.1	x	x	x
Refrigerators, ENERGY STAR high efficiency	0.6	3,674	0	\$571	\$23,736	41.6			
Refrigerators, ENERGY STAR premium efficiency	0.8	4,900	0	\$762	\$27,692	36.3			
Bathroom exhaust fan, ENERGY STAR minimum certification efficiency	0.2	1,164	0	\$182	\$0	0.0		x	
Bathroom exhaust fan, ENERGY STAR premium efficiency	0.3	1,985	0	\$309	\$0	0.0			x
Single Units, Market Rate									
Clothes washers, ENERGY STAR minimum certification efficiency	1.6	10,251	29	\$1,620	\$9,297	5.7	x	x	
Clothes washers, ENERGY STAR high efficiency	1.9	12,036	29	\$1,896	\$23,242	12.3			x
Clothes washers, ENERGY STAR premium efficiency	2.4	15,172	33	\$2,384	\$37,186	15.6			
Clothes dryers, ENERGY STAR minimum certification efficiency	0.2	1,405	0	\$220	\$13,945	63.4	x	x	
Clothes dryers, ENERGY STAR high efficiency	0.6	3,651	0	\$567	\$32,538	57.4			x
Clothes dryers, ENERGY STAR premium efficiency	1.2	7,784	0	\$1,208	\$34,862	28.9			
Dishwashers, ENERGY STAR premium efficiency	0.1	941	123	\$260	\$20,453	78.7		x	x
Refrigerators, ENERGY STAR minimum certification efficiency	0.5	2,861	0	\$444	\$13,945	31.4	x	x	x
Refrigerators, ENERGY STAR high efficiency	0.7	4,292	0	\$666	\$27,890	41.9			
Refrigerators, ENERGY STAR premium efficiency	0.9	5,721	0	\$888	\$32,538	36.6			
Bathroom exhaust fan, ENERGY STAR minimum certification efficiency	0.2	1,348	0	\$210	\$0	0.0		x	
Bathroom exhaust fan, ENERGY STAR premium efficiency	0.4	2,316	0	\$359	\$0	0.0			x
Service Water Heating									
Facility									
82% SWH efficiency	0	0	233	\$217	\$263	1.2			
90% SWH efficiency	0	0	1,197	\$1,116	\$1,488	1.3			
95% SWH efficiency	0	0	1,637	\$1,526	\$2,253	1.5	x	x	x
Gas fired on-demand SWH	0	0	765	\$712	\$50,043	70.3			
Multi Units, Market Rate									
Showerheads, WaterSense fixture flow at 2.00 gpm	0	0	567	\$529	\$401	0.8		x	
Showerheads, WaterSense fixture flow at 1.75 gpm	0	0	850	\$793	\$854	1.1			x
Showerheads, WaterSense fixture flow at 1.50 gpm	0	0	1,133	\$1,055	\$1,188	1.1			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Single Units, Market Rate									
Showerheads, WaterSense fixture flow at 2.00 gpm	0	0	422	\$395	\$471	1.2		x	
Showerheads, WaterSense fixture flow at 1.75 gpm	0	0	633	\$590	\$1,004	1.7			x
Showerheads, WaterSense fixture flow at 1.50 gpm	0	0	843	\$786	\$1,396	1.8			

MARKET RATE Results for HVAC B: VTACs + Splits

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 4	Bundle 5	Bundle 6
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Mechanical									
Ducted Split Systems (Multi Units)									
Electronically commutated motor	1.2	12,490	-243	\$1,709	\$5,430	3.2		x	x
5% improved DX cooling efficiency	1.3	3,106	0	\$482	\$7,831	16.2	x	x	
10% improved DX cooling efficiency	2.4	5,929	0	\$919	\$15,662	17.0			x
20% improved DX cooling efficiency	4.5	10,872	0	\$1,686	\$31,324	18.6			
30% improved DX cooling efficiency	6.2	15,054	0	\$2,332	\$46,986	20.1			
82% efficient gas furnace	0	0	266	\$246	\$1,207	4.9			
90% efficient gas furnace	0	0	1,209	\$1,128	\$6,653	5.9	x	x	
95% efficient gas furnace	0	0	1,719	\$1,602	\$10,057	6.3			x
Sensible heat recovery	0	-2,400	2,454	\$1,916	\$28,266	14.8			
Programmable thermostats for Multi Units, Market Rate	0.1	1,773	853	\$1,068	\$1,127	1.1	x		
Communicating thermostats for Multi Units, Market Rate	1.9	9,778	1,297	\$2,725	\$3,988	1.5		x	
Smart thermostats for Multi Units, Market Rate	2.9	13,483	1,310	\$3,309	\$7,109	2.1			x
VTACs (Single Units)									
Electronically commutated motor	0.9	9,809	-192	\$1,342	\$4,041	3.0		x	x
5% improved DX cooling efficiency	1	2,473	0	\$384	\$5,828	15.2	x	x	
10% improved DX cooling efficiency	2	4,720	0	\$732	\$11,657	15.9			x
20% improved DX cooling efficiency	3.6	8,660	0	\$1,343	\$23,313	17.4			
30% improved DX cooling efficiency	5	11,985	0	\$1,857	\$34,970	18.8			
82% efficient gas furnace	0	0	211	\$196	\$898	4.6			
90% efficient gas furnace	0	0	963	\$897	\$4,952	5.5			
95% efficient gas furnace	0	0	1,368	\$1,275	\$7,485	5.9	x	x	x
Sensible heat recovery	0	-1,881	1,822	\$1,405	\$21,323	15.2			
Programmable thermostats for Single Units, Market Rate	0	1,425	679	\$851	\$1,325	1.6	x		
Communicating thermostats for Single Units, Market Rate	1.5	7,658	1,034	\$2,149	\$4,685	2.2		x	
Smart thermostats for Single Units, Market Rate	2.2	10,539	1,044	\$2,606	\$8,353	3.2			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	264	\$245	\$524	2.1			x
90% efficient gas furnace	0	0	1,203	\$1,121	\$2,888	2.6			
95% efficient gas furnace	0	0	1,709	\$1,593	\$4,365	2.7			
Sensible heat recovery	-0.1	-2,130	5,287	\$4,599	\$12,902	2.8			
Total heat recovery	-0.4	-4,282	5,844	\$4,785	\$12,924	2.7			
CO sensor control of outdoor air	0	6,709	3,638	\$4,429	\$0	0.0	x	x	x
Direct-fired furnace	0	0	2,165	\$2,017	\$0	0.0			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 4	Bundle 5	Bundle 6
	Peak kW	kWh	Gas (Therm)	Energy Cost					
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.2	8,642	-96	\$1,246	\$2,187	1.8		x	x
Variable speed fan at 67% minimum flow	5.1	35,227	-663	\$4,842	\$4,308	0.9			
Variable speed fan at 30% minimum flow	9.3	61,082	-1,185	\$8,362	\$4,308	0.5			
Fan system power at 0.85 BHP/1000cfm	1.1	7,108	-76	\$1,027	\$1,048	1.0			
5% improved DX cooling efficiency	0.3	397	0	\$63	\$3,154	50.1	x	x	x
10% improved DX cooling efficiency	0.5	755	0	\$118	\$6,309	53.5			
20% improved DX cooling efficiency	0.9	1,369	0	\$211	\$12,617	59.8			
30% improved DX cooling efficiency	1.2	1,872	0	\$290	\$18,926	65.3			
High efficiency DX compressor part load performance	0.8	1,448	0	\$225	\$12,197	54.2			
Premium efficiency DX compressor part load performance	2.5	4,053	0	\$628	\$24,814	39.5			
82% efficient gas furnace	0	0	23	\$20	\$486	24.3	x	x	x
90% efficient gas furnace	0	0	104	\$97	\$2,680	27.6			
95% efficient gas furnace	0	0	148	\$138	\$4,051	29.4			
Sensible heat recovery	0	-594	627	\$492	\$12,053	24.5			
Architectural – Same as Scenario A									
Lighting – Same as Scenario A									
Plug/Process – Same as Scenario A									
Service Water Heating – Same as Scenario A									

MARKET RATE Results for HVAC C: HP + Splits

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 7	Bundle 8	Bundle 9
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Mechanical									
Ducted Split Systems (Multi Units)									
Electronically commutated motor	1.2	12,491	-243	\$1,711	\$5,430	3.2		x	x
5% improved DX cooling efficiency	1.3	3,106	0	\$483	\$7,831	16.2	x	x	
10% improved DX cooling efficiency	2.4	5,929	0	\$918	\$15,662	17.1			x
20% improved DX cooling efficiency	4.5	10,872	0	\$1,687	\$31,324	18.6			
30% improved DX cooling efficiency	6.2	15,054	0	\$2,333	\$46,986	20.1			
82% efficient gas furnace	0	0	265	\$248	\$1,207	4.9			
90% efficient gas furnace	0	0	1,209	\$1,126	\$6,653	5.9	x	x	
95% efficient gas furnace	0	0	1,719	\$1,602	\$10,057	6.3			x
Sensible heat recovery	0	-2,400	2,454	\$1,916	\$28,266	14.8			
Programmable thermostats for Multi Units, Market Rate	0.1	1,773	852	\$1,071	\$1,127	1.1	x		
Communicating thermostats for Multi Units, Market Rate	1.9	9,778	1,296	\$2,725	\$3,988	1.5		x	
Smart thermostats for Multi Units, Market Rate	2.9	13,483	1,310	\$3,313	\$7,109	2.1			x
Mini-split Heat Pumps (Single Units)									
Electronically commutated motor	0.9	5,940	0	\$922	\$4,041	4.4		x	x
5% improved heat pump cooling efficiency	1	3,664	0	\$570	\$2,922	5.1	x		
10% improved heat pump cooling efficiency	2	6,878	0	\$1,067	\$5,844	5.5		x	
20% improved heat pump cooling efficiency	3.6	12,196	0	\$1,891	\$11,688	6.2			x
30% improved heat pump cooling efficiency	5	16,271	0	\$2,522	\$17,532	7.0			
5% improved heat pump heating efficiency	0	3,324	0	\$515	\$1,943	3.8	x	x	x
10% improved heat pump heating efficiency	0	6,314	0	\$981	\$3,886	4.0			
20% improved heat pump heating efficiency	0	11,392	0	\$1,766	\$7,771	4.4			
30% improved heat pump heating efficiency	0	15,428	0	\$2,391	\$11,657	4.9			
Sensible heat recovery	0	23,169	0	\$3,592	\$21,323	5.9			
Programmable thermostats for Single Units, Market Rate	0	9,926	0	\$1,539	\$1,325	0.9	x		
Communicating thermostats for Single Units, Market Rate	1.5	18,522	0	\$2,872	\$4,685	1.6		x	
Smart thermostats for Single Units, Market Rate	2.2	20,378	0	\$3,160	\$8,353	2.6			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	264	\$246	\$524	2.1			x
90% efficient gas furnace	0	0	1,203	\$1,121	\$2,888	2.6			
95% efficient gas furnace	0	0	1,709	\$1,595	\$4,365	2.7			
Sensible heat recovery	-0.1	-2,130	5,286	\$4,597	\$12,902	2.8			
Total heat recovery	-0.4	-4,282	5,844	\$4,786	\$12,924	2.7			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 7	Bundle 8	Bundle 9
	Peak kW	kWh	Gas (Therm)	Energy Cost					
CO sensor control of outdoor air	0	6,709	3,638	\$4,434	\$0	0.0	x	x	x
Direct-fired furnace	0	0	2,164	\$2,017	\$0	0.0			
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.2	8,642	-96	\$1,251	\$2,187	1.7		x	x
Variable speed fan at 67% minimum flow	5.1	35,227	-663	\$4,844	\$4,308	0.9			
Variable speed fan at 30% minimum flow	9.3	61,082	-1,185	\$8,365	\$4,308	0.5			
Fan system power at 0.85 BHP/1000cfm	1.1	7,108	-76	\$1,033	\$1,048	1.0			
5% improved DX cooling efficiency	0.3	397	0	\$63	\$3,154	50.1	x	x	x
10% improved DX cooling efficiency	0.5	755	0	\$120	\$6,309	52.6			
20% improved DX cooling efficiency	0.9	1,369	0	\$214	\$12,617	59.0			
30% improved DX cooling efficiency	1.2	1,873	0	\$292	\$18,926	64.8			
High efficiency DX compressor part load performance	0.8	1,448	0	\$227	\$12,197	53.7			
Premium efficiency DX compressor part load performance	2.5	4,053	0	\$629	\$24,814	39.4			
82% efficient gas furnace	0	0	23	\$22	\$486	22.1	x	x	x
90% efficient gas furnace	0	0	104	\$97	\$2,680	27.6			
95% efficient gas furnace	0	0	148	\$137	\$4,051	29.6			
Sensible heat recovery	0	-594	627	\$492	\$12,053	24.5			
Architectural – Same as Scenario A									
Lighting – Same as Scenario A									
Plug/Process – Same as Scenario A									
Service Water Heating – Same as Scenario A									

AFFORDABLE RATE Results for HVAC A: All HP

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Mechanical									
Mini-Split Heat Pumps (All Units)									
Electronically commutated motor	1.7	11,311	0	\$1,753	\$7,624	4.3		x	x
5% improved heat pump cooling efficiency	2	7,657	0	\$1,187	\$5,513	4.6	x		
10% improved heat pump cooling efficiency	3.7	14,450	0	\$2,239	\$11,026	4.9		x	
20% improved heat pump cooling efficiency	6.9	25,878	0	\$4,012	\$22,052	5.5			x
30% improved heat pump cooling efficiency	9.5	34,974	0	\$5,420	\$33,077	6.1			
5% improved heat pump heating efficiency	0	5,861	0	\$910	\$3,665	4.0	x	x	x
10% improved heat pump heating efficiency	0	11,074	0	\$1,717	\$7,331	4.3			
20% improved heat pump heating efficiency	0	19,845	0	\$3,075	\$14,662	4.8			
30% improved heat pump heating efficiency	0	26,730	0	\$4,143	\$21,993	5.3			
Sensible heat recovery	0	46,010	0	\$7,131	\$39,240	5.5			
Total heat recovery	-3.9	12,245	0	\$1,897	\$26,011	13.7			
Programmable thermostats for Multi Units, Affordable	0.1	12,267	0	\$1,901	\$902	0.5	x		
Communicating thermostats for Multi Units, Affordable	1.8	22,804	0	\$3,532	\$3,190	0.9		x	
Smart thermostats for Multi Units, Affordable	2.9	25,149	0	\$3,899	\$5,687	1.5			x
Programmable thermostats for Single Units, Affordable	0	7,122	0	\$1,102	\$789	0.7	x		
Communicating thermostats for Single Units, Affordable	1	13,306	0	\$2,060	\$2,791	1.4		x	
Smart thermostats for Single Units, Affordable	1.5	14,660	0	\$2,272	\$4,976	2.2			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	221	\$206	\$422	2.0			x
90% efficient gas furnace	0	0	1,006	\$937	\$2,325	2.5			
95% efficient gas furnace	0	0	1,429	\$1,333	\$3,515	2.6			
Sensible heat recovery	0	-1,712	4,156	\$3,609	\$10,607	2.9			
Total heat recovery	-0.4	-3,719	4,593	\$3,707	\$11,783	3.2			
CO sensor control of outdoor air	0	5,229	2,963	\$3,574	\$0	0.0	x	x	x
Direct-fired furnace	0	0	1,810	\$1,686	\$0	0.0			
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.1	7,451	-88	\$1,073	\$1,884	1.8		x	x
Variable speed fan at 67% minimum flow	5	30,671	-585	\$4,210	\$4,033	1.0			
Variable speed fan at 30% minimum flow	8.6	52,567	-1,039	\$7,178	\$4,033	0.6			
Fan system power at 0.85 BHP/1000cfm	1	6,100	-69	\$881	\$903	1.0			
5% improved DX cooling efficiency	0.3	365	0	\$55	\$2,717	49.4	x	x	x

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
10% improved DX cooling efficiency	0.5	692	0	\$105	\$5,433	51.7			
20% improved DX cooling efficiency	0.9	1,253	0	\$193	\$10,867	56.3			
30% improved DX cooling efficiency	1.2	1,713	0	\$264	\$16,300	61.7			
High efficiency DX compressor part load performance	1	1,556	0	\$241	\$10,504	43.6			
Premium efficiency DX compressor part load performance	2.7	4,135	0	\$640	\$21,371	33.4			
82% efficient gas furnace	0	0	28	\$28	\$419	15.0	x	x	x
90% efficient gas furnace	0	0	129	\$120	\$2,308	19.2			
95% efficient gas furnace	0	0	183	\$171	\$3,489	20.4			
Sensible heat recovery	0	-668	615	\$470	\$10,536	22.4			
Demand control ventilation for Shop	0	54	59	\$59	\$375	6.4			x
Architectural									
Multi Units, Affordable									
Wall R-16	0	1,027	0	\$160	\$834	5.2			
Wall R-20	0.2	9,542	0	\$1,478	\$9,734	6.6	x	x	
Wall R-24	0.4	15,153	0	\$2,349	\$18,635	7.9			x
Roof R-24	0	1,332	0	\$207	\$1,708	8.2			
Roof R-30	0.1	3,113	0	\$483	\$4,943	10.2	x	x	x
Roof R-36	0.1	4,339	0	\$673	\$8,178	12.2			
Roof R-40	0.1	4,933	0	\$766	\$10,335	13.5			
Roof R-50	0.2	6,012	0	\$930	\$15,727	16.9			
Glazing high solar gain, non-metal frame	0.4	17,219	0	\$2,669	\$0	0.0			
Glazing medium solar gain, high transparency, non-metal frame	2.9	15,491	0	\$2,401	\$7,961	3.3	x	x	
Glazing medium solar gain, non-metal frame	2.9	15,491	0	\$2,401	\$3,969	1.7			
Glazing high solar gain w/ argon, non-metal frame	0.6	24,165	0	\$3,745	\$2,372	0.6			
Glazing medium solar gain, high transparency w/ argon, non-metal frame	2.8	22,883	0	\$3,546	\$10,356	2.9			x
Glazing medium solar gain w/ argon, non-metal frame	2.8	22,883	0	\$3,546	\$6,364	1.8			
Single Units, Affordable									
Wall R-16	0	659	0	\$103	\$548	5.3			
Wall R-20	0.1	6,166	0	\$956	\$6,389	6.7	x	x	
Wall R-24	0.2	9,815	0	\$1,523	\$12,230	8.0			x
Roof R-24	0	868	0	\$135	\$1,063	7.9			
Roof R-30	0.1	2,006	0	\$311	\$3,078	9.9	x	x	x
Roof R-36	0.1	2,754	0	\$425	\$5,093	12.0			
Roof R-40	0.1	3,125	0	\$483	\$6,436	13.3			
Roof R-50	0.1	3,797	0	\$586	\$9,794	16.7			
Glazing high solar gain, non-metal frame	0.3	11,148	0	\$1,727	\$0	0.0			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Glazing medium solar gain, high transparency, non-metal frame	1.8	10,159	0	\$1,575	\$5,192	3.3	x	x	
Glazing medium solar gain, non-metal frame	1.8	10,159	0	\$1,575	\$2,588	1.6			
Glazing high solar gain w/ argon, non-metal frame	0.4	15,666	0	\$2,428	\$1,547	0.6			
Glazing medium solar gain, high transparency w/ argon, non-metal frame	1.8	14,977	0	\$2,321	\$6,755	2.9			x
Glazing medium solar gain w/ argon, non-metal frame	1.8	14,977	0	\$2,321	\$4,151	1.8			
Shop									
Wall R-20	0	31	19	\$22	\$297	13.5	x	x	
Wall R-24	0	47	30	\$33	\$568	17.2			x
Glazing high solar gain w/ argon, metal frame	0	36	8	\$14	\$51	3.7			
Glazing medium solar gain, high transparency w/ argon, metal frame	0.1	106	-4	\$13	\$225	17.3			
Glazing medium solar gain w/ argon, metal frame	0.1	106	-4	\$13	\$138	10.6			
Glazing high solar gain, non-metal frame	0	41	26	\$31	\$0	0.0			
Glazing medium solar gain, high transparency, non-metal frame	0.1	120	14	\$30	\$173	5.8	x	x	
Glazing medium solar gain, non-metal frame	0.1	120	14	\$30	\$86	2.9			
Glazing high solar gain w/ argon, non-metal frame	0	58	37	\$43	\$51	1.2			
Glazing medium solar gain, high transparency w/ argon, non-metal frame	0.1	128	26	\$44	\$225	5.1			x
Glazing medium solar gain w/ argon, non-metal frame	0.1	128	26	\$44	\$138	3.1			
Corridors									
Roof R-24	0	10	25	\$25	\$429	17.2			
Roof R-30	0	24	58	\$57	\$1,241	21.8	x	x	x
Roof R-36	0	31	79	\$78	\$2,054	26.3			
Roof R-40	0	34	90	\$87	\$2,595	29.8			
Roof R-50	0	42	108	\$106	\$3,949	37.3			
Common Areas									
Roof R-24	0	7	16	\$15	\$290	19.3			
Roof R-30	0	17	37	\$38	\$839	22.1	x	x	x
Roof R-36	0	22	51	\$49	\$1,388	28.3			
Roof R-40	0	25	57	\$57	\$1,753	30.8			
Roof R-50	0	30	69	\$69	\$2,668	38.7			
Lighting									
Facility									
Exterior tradable site lighting reduced to 2.21 kW	0	1,076	0	\$167	\$373	2.2			
Exterior tradable site lighting reduced to 1.97 kW	0	2,152	0	\$335	\$746	2.2			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Exterior tradable site lighting reduced to 1.72 kW	0	3,229	0	\$500	\$1,118	2.2	x		
Exterior tradable site lighting reduced to 1.47 kW	0	4,305	0	\$665	\$1,491	2.2		x	
Exterior tradable site lighting reduced to 1.23 kW	0	5,381	0	\$835	\$1,864	2.2			x
Exterior tradable site lighting reduced to 0.98 kW	0	6,457	0	\$1,002	\$2,237	2.2			
Exterior tradable site lighting reduced to 0.74 kW	0	7,533	0	\$1,167	\$2,609	2.2			
Exterior tradable site lighting reduced to 0.49 kW	0	8,609	0	\$1,336	\$2,982	2.2			
Multi Units, Affordable									
Lighting power in Multi Units, Affordable reduced to 0.96 W/ft ²	0.2	3,061	0	\$473	\$2,607	5.5			
Lighting power in Multi Units, Affordable reduced to 0.86 W/ft ²	0.5	6,066	0	\$940	\$5,215	5.5			
Lighting power in Multi Units, Affordable reduced to 0.75 W/ft ²	0.7	9,103	0	\$1,410	\$7,656	5.4	x		
Lighting power in Multi Units, Affordable reduced to 0.64 W/ft ²	1	12,134	0	\$1,879	\$9,930	5.3		x	
Lighting power in Multi Units, Affordable reduced to 0.54 W/ft ²	1.2	15,148	0	\$2,349	\$12,035	5.1			x
Lighting power in Multi Units, Affordable reduced to 0.43 W/ft ²	1.5	18,162	0	\$2,816	\$13,973	5.0			
Single Units, Affordable									
Lighting power in Single Units, Affordable reduced to 0.96 W/ft ²	0.1	1,569	0	\$243	\$1,353	5.6			
Lighting power in Single Units, Affordable reduced to 0.86 W/ft ²	0.2	3,129	0	\$485	\$2,707	5.6			
Lighting power in Single Units, Affordable reduced to 0.75 W/ft ²	0.4	4,707	0	\$730	\$3,973	5.4	x		
Lighting power in Single Units, Affordable reduced to 0.64 W/ft ²	0.5	6,266	0	\$971	\$5,153	5.3		x	
Lighting power in Single Units, Affordable reduced to 0.54 W/ft ²	0.6	7,831	0	\$1,213	\$6,246	5.1			x
Lighting power in Single Units, Affordable reduced to 0.43 W/ft ²	0.7	9,401	0	\$1,457	\$7,252	5.0			
Shop									
Dimming daylighting control, 25% of daylightable area	0.2	496	-9	\$68	\$90	1.3			
Dimming daylighting control, 50% of daylightable area	0.4	992	-18	\$138	\$179	1.3			
Dimming daylighting control, 75% of daylightable area	0.6	1,488	-27	\$207	\$269	1.3			
Dimming daylighting control, 100% of daylightable area	0.8	1,931	-35	\$265	\$359	1.4		x	x
Occupancy sensor controls, 25% of space	0	171	-3	\$23	\$45	2.0			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Occupancy sensor controls, 50% of space	0	340	-7	\$47	\$90	1.9			
Occupancy sensor controls, 75% of space	0	510	-10	\$70	\$135	1.9			
Occupancy sensor controls, 100% of space	0	681	-14	\$94	\$180	1.9			
Vacancy sensor controls, 25% of space	0	228	-4	\$31	\$45	1.4			
Vacancy sensor controls, 50% of space	0	454	-9	\$65	\$90	1.4			
Vacancy sensor controls, 75% of space	0	681	-14	\$94	\$135	1.4			
Vacancy sensor controls, 100% of space	0	906	-18	\$124	\$180	1.4			
Lighting power in Shop reduced to 1.13 W/ft ²	0.1	511	-10	\$71	\$64	0.9			
Lighting power in Shop reduced to 1.01 W/ft ²	0.3	1,020	-20	\$140	\$128	0.9			
Lighting power in Shop reduced to 0.88 W/ft ²	0.4	1,529	-31	\$210	\$188	0.9	x		
Lighting power in Shop reduced to 0.76 W/ft ²	0.6	2,038	-41	\$276	\$244	0.9		x	
Lighting power in Shop reduced to 0.63 W/ft ²	0.7	2,547	-52	\$348	\$296	0.9			x
Lighting power in Shop reduced to 0.50 W/ft ²	0.8	3,055	-63	\$415	\$344	0.8			
High-end trim, 10% lighting power reduction	0.1	511	-10	\$71	\$57	0.8			
Corridors									
Occupancy sensor controls, 25% of space	0.2	1,532	-18	\$221	\$382	1.7			
Occupancy sensor controls, 50% of space	0.4	3,067	-36	\$441	\$765	1.7			
Occupancy sensor controls, 75% of space	0.5	4,311	-52	\$619	\$1,147	1.9			
Occupancy sensor controls, 100% of space	0.7	5,264	-63	\$756	\$1,529	2.0			
Lighting power in Corridors reduced to 0.46 W/ft ²	0.3	2,040	-22	\$296	\$546	1.8			
Lighting power in Corridors reduced to 0.41 W/ft ²	0.7	4,085	-46	\$591	\$1,091	1.8			
Lighting power in Corridors reduced to 0.36 W/ft ²	1	6,139	-71	\$886	\$1,602	1.8	x		
Lighting power in Corridors reduced to 0.31 W/ft ²	1.4	8,203	-97	\$1,181	\$2,078	1.8		x	
Lighting power in Corridors reduced to 0.26 W/ft ²	1.7	10,282	-125	\$1,475	\$2,519	1.7			x
High-end trim, 10% lighting power reduction	0.3	2,040	-22	\$296	\$483	1.6			
Common Areas									
Occupancy sensor controls, 25% of space	0.1	844	-11	\$120	\$258	2.2			
Occupancy sensor controls, 50% of space	0.3	1,684	-22	\$239	\$517	2.2			
Occupancy sensor controls, 75% of space	0.4	2,528	-33	\$363	\$775	2.1			
Occupancy sensor controls, 100% of space	0.5	3,369	-44	\$481	\$1,033	2.1		x	x
Vacancy sensor controls, 25% of space	0.2	983	-12	\$140	\$258	1.8			
Vacancy sensor controls, 50% of space	0.3	1,966	-26	\$283	\$517	1.8			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Vacancy sensor controls, 75% of space	0.5	2,950	-38	\$423	\$775	1.8			
Vacancy sensor controls, 100% of space	0.6	3,932	-51	\$563	\$1,033	1.8			
Lighting power in Common Areas reduced to 0.46 W/ft ²	0.2	1,127	-13	\$163	\$369	2.3			
Lighting power in Common Areas reduced to 0.41 W/ft ²	0.5	2,252	-28	\$323	\$737	2.3			
Lighting power in Common Areas reduced to 0.36 W/ft ²	0.7	3,378	-41	\$485	\$1,083	2.2	x		
Lighting power in Common Areas reduced to 0.31 W/ft ²	0.9	4,504	-56	\$648	\$1,404	2.2		x	
Lighting power in Common Areas reduced to 0.26 W/ft ²	1.2	5,628	-72	\$807	\$1,702	2.1			x
High-end trim, 10% lighting power reduction	0.2	1,127	-13	\$163	\$326	2.0			
Interior Parking									
Occupancy sensor controls, 50% of space	0.2	1,584	-17	\$231	\$552	2.4			
Occupancy sensor controls, 75% of space	0.3	3,563	-39	\$518	\$1,243	2.4			
Occupancy sensor controls, 100% of space	0.5	5,544	-62	\$803	\$1,934	2.4	x	x	x
Lighting power in Interior Parking reduced to 0.19 W/ft ²	0.3	2,025	-21	\$293	\$986	3.4			
Lighting power in Interior Parking reduced to 0.17 W/ft ²	0.6	4,050	-44	\$586	\$1,972	3.4			
Lighting power in Interior Parking reduced to 0.15 W/ft ²	0.9	6,075	-67	\$883	\$2,895	3.3	x		
Lighting power in Interior Parking reduced to 0.13 W/ft ²	1.1	8,100	-90	\$1,172	\$3,754	3.2		x	
Lighting power in Interior Parking reduced to 0.11 W/ft ²	1.4	10,126	-115	\$1,462	\$4,550	3.1			x
Lighting power in Interior Parking reduced to 0.08 W/ft ²	1.7	12,151	-139	\$1,757	\$5,283	3.0			
High-end trim, 10% lighting power reduction	0.3	2,025	-21	\$293	\$872	3.0			
Plug/Process									
Facility									
Traction elevator, gearless	0.2	1,026	0	\$158	\$12,113	76.7	x		
Traction elevator, machine roomless	0.5	2,154	0	\$335	\$21,197	63.3		x	x
Traction elevator, regenerative	0.7	2,892	0	\$449	\$42,394	94.4			
Elevator permanent magnet motor	0.1	363	0	\$56	\$15,141	100+			
Multi Units, Affordable									
Clothes washers, ENERGY STAR minimum certification efficiency	1.1	7,029	20	\$1,109	\$6,330	5.7	x	x	
Clothes washers, ENERGY STAR high efficiency	1.3	8,217	20	\$1,290	\$15,824	12.3			x
Clothes washers, ENERGY STAR premium efficiency	1.7	10,363	23	\$1,627	\$25,318	15.6			
Clothes dryers, ENERGY STAR minimum certification efficiency	0.2	973	0	\$150	\$9,494	63.3	x	x	
Clothes dryers, ENERGY STAR high efficiency	0.4	2,525	0	\$392	\$22,154	56.5			x
Clothes dryers, ENERGY STAR premium efficiency	0.9	5,330	0	\$826	\$23,736	28.7			

Strategy	Annual Savings			Energy Cost	Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)						
Dishwashers, ENERGY STAR premium efficiency	0.1	659	84	\$180	\$13,925	77.4		x	x
Refrigerators, ENERGY STAR minimum certification efficiency	0.3	1,977	0	\$306	\$9,494	31.0	x	x	x
Refrigerators, ENERGY STAR high efficiency	0.5	2,962	0	\$459	\$18,989	41.4			
Refrigerators, ENERGY STAR premium efficiency	0.6	3,941	0	\$611	\$22,154	36.3			
Bathroom exhaust fan, ENERGY STAR minimum certification efficiency	0.1	937	0	\$145	\$0	0.0		x	
Bathroom exhaust fan, ENERGY STAR premium efficiency	0.3	1,582	0	\$245	\$0	0.0			x
Single Units, Affordable									
Clothes washers, ENERGY STAR minimum certification efficiency	1	6,113	17	\$961	\$5,538	5.8	x	x	
Clothes washers, ENERGY STAR high efficiency	1.2	7,177	17	\$1,128	\$13,846	12.3			x
Clothes washers, ENERGY STAR premium efficiency	1.5	9,037	20	\$1,419	\$22,154	15.6			
Clothes dryers, ENERGY STAR minimum certification efficiency	0.1	826	0	\$127	\$8,308	65.4	x	x	
Clothes dryers, ENERGY STAR high efficiency	0.4	2,183	0	\$338	\$19,384	57.4			x
Clothes dryers, ENERGY STAR premium efficiency	0.7	4,640	0	\$719	\$20,769	28.9			
Dishwashers, ENERGY STAR premium efficiency	0.1	560	73	\$158	\$12,184	77.1		x	x
Refrigerators, ENERGY STAR minimum certification efficiency	0.3	1,710	0	\$264	\$8,308	31.5	x	x	x
Refrigerators, ENERGY STAR high efficiency	0.4	2,563	0	\$396	\$16,615	42.0			
Refrigerators, ENERGY STAR premium efficiency	0.5	3,414	0	\$528	\$19,384	36.7			
Bathroom exhaust fan, ENERGY STAR minimum certification efficiency	0.1	800	0	\$125	\$0	0.0		x	
Bathroom exhaust fan, ENERGY STAR premium efficiency	0.2	1,371	0	\$214	\$0	0.0			x
Service Water Heating									
Facility									
82% SWH efficiency	0	0	188	\$176	\$214	1.2			
90% SWH efficiency	0	0	965	\$899	\$1,211	1.3			
95% SWH efficiency	0	0	1,320	\$1,231	\$1,834	1.5	x	x	x
Gas fired on-demand SWH	0	0	609	\$567	\$34,813	61.4			
Multi Units, Affordable									
Showerheads, WaterSense fixture flow at 2.00 gpm	0	0	524	\$489	\$321	0.7		x	
Showerheads, WaterSense fixture flow at 1.75 gpm	0	0	786	\$733	\$684	0.9			x
Showerheads, WaterSense fixture flow at 1.50 gpm	0	0	1,048	\$977	\$951	1.0			

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 1	Bundle 2	Bundle 3
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Single Units, Affordable									
Showerheads, WaterSense fixture flow at 2.00 gpm	0	0	272	\$255	\$281	1.1		x	
Showerheads, WaterSense fixture flow at 1.75 gpm	0	0	408	\$380	\$598	1.6			x
Showerheads, WaterSense fixture flow at 1.50 gpm	0	0	544	\$506	\$832	1.6			

AFFORDABLE RATE Results for HVAC B: VTACs + Splits

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 4	Bundle 5	Bundle 6
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Mechanical									
Ducted Split Systems (Multi Units)									
Electronically commutated motor	1.1	11,503	-220	\$1,578	\$5,019	3.2		x	x
5% improved DX cooling efficiency	1.2	2,883	0	\$450	\$7,239	16.1	x	x	
10% improved DX cooling efficiency	2.3	5,496	0	\$854	\$14,479	17.0			x
20% improved DX cooling efficiency	4.3	10,073	0	\$1,564	\$28,958	18.5			
30% improved DX cooling efficiency	5.9	13,948	0	\$2,162	\$43,437	20.1			
82% efficient gas furnace	0	0	249	\$234	\$1,116	4.8			
90% efficient gas furnace	0	0	1,133	\$1,059	\$6,151	5.8	x	x	
95% efficient gas furnace	0	0	1,610	\$1,503	\$9,297	6.2			x
Sensible heat recovery	0	-2,239	2,283	\$1,785	\$26,215	14.7			
Programmable thermostats for Multi Units, Affordable	0.1	1,711	807	\$1,019	\$902	0.9	x		
Communicating thermostats for Multi Units, Affordable	1.8	9,430	1,225	\$2,606	\$3,190	1.2		x	
Smart thermostats for Multi Units, Affordable	2.9	13,092	1,238	\$3,185	\$5,687	1.8			x
VTACs (Single Units)									
Electronically commutated motor	0.6	6,539	-127	\$897	\$2,605	2.9		x	x
5% improved DX cooling efficiency	0.7	1,730	0	\$270	\$3,757	13.9	x	x	
10% improved DX cooling efficiency	1.4	3,303	0	\$514	\$7,514	14.6			x
20% improved DX cooling efficiency	2.6	6,055	0	\$940	\$15,028	16.0			
30% improved DX cooling efficiency	3.6	8,385	0	\$1,301	\$22,542	17.3			
82% efficient gas furnace	0	0	148	\$139	\$579	4.2			
90% efficient gas furnace	0	0	673	\$626	\$3,192	5.1			
95% efficient gas furnace	0	0	956	\$893	\$4,825	5.4	x	x	x
Sensible heat recovery	0	-1,258	1,174	\$899	\$14,143	15.7			
Programmable thermostats for Single Units, Affordable	0	1,044	476	\$607	\$789	1.3	x		
Communicating thermostats for Single Units, Affordable	1	5,437	725	\$1,519	\$2,791	1.8		x	
Smart thermostats for Single Units, Affordable	1.5	7,504	733	\$1,846	\$4,976	2.7			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	221	\$205	\$422	2.1			x
90% efficient gas furnace	0	0	1,005	\$938	\$2,325	2.5			
95% efficient gas furnace	0	0	1,429	\$1,331	\$3,515	2.6			
Sensible heat recovery	0	-1,711	4,156	\$3,611	\$10,607	2.9			
Total heat recovery	-0.4	-3,719	4,592	\$3,706	\$11,783	3.2			
CO sensor control of outdoor air	0	5,230	2,963	\$3,574	\$0	0.0	x	x	x
Direct-fired furnace	0	0	1,810	\$1,686	\$0	0.0			

Strategy	Annual Savings			Energy Cost	Incremental First Cost	Payback (yrs)	Bundle 4	Bundle 5	Bundle 6
	Peak kW	kWh	Gas (Therm)						
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.1	7,451	-88	\$1,074	\$1,884	1.8		x	x
Variable speed fan at 67% minimum flow	5	30,670	-585	\$4,209	\$4,033	1.0			
Variable speed fan at 30% minimum flow	8.6	52,566	-1,039	\$7,181	\$4,033	0.6			
Fan system power at 0.85 BHP/1000cfm	1	6,100	-70	\$882	\$903	1.0			
5% improved DX cooling efficiency	0.3	365	0	\$58	\$2,717	46.8	x	x	x
10% improved DX cooling efficiency	0.5	692	0	\$110	\$5,433	49.4			
20% improved DX cooling efficiency	0.9	1,253	0	\$195	\$10,867	55.7			
30% improved DX cooling efficiency	1.2	1,712	0	\$267	\$16,300	61.0			
High efficiency DX compressor part load performance	1	1,556	0	\$243	\$10,504	43.2			
Premium efficiency DX compressor part load performance	2.7	4,135	0	\$642	\$21,371	33.3			
82% efficient gas furnace	0	0	28	\$27	\$419	15.5	x	x	x
90% efficient gas furnace	0	0	129	\$120	\$2,308	19.2			
95% efficient gas furnace	0	0	183	\$170	\$3,489	20.5			
Sensible heat recovery	0	-668	615	\$471	\$10,536	22.4			
Demand control ventilation for Shop	0	54	59	\$62	\$375	6.0			x
Architectural – Same as Scenario A									
Lighting – Same as Scenario A									
Plug/Process – Same as Scenario A									
Service Water Heating – Same as Scenario A									

AFFORDABLE RATE Results for HVAC C: HP + Splits

Strategy	Annual Savings				Incremental First Cost	Payback (yrs)	Bundle 7	Bundle 8	Bundle 9
	Peak kW	kWh	Gas (Therm)	Energy Cost					
Mechanical									
Ducted Split Systems (Multi Units)									
Electronically commutated motor	1.1	11,504	-220	\$1,580	\$5,019	3.2		x	x
5% improved DX cooling efficiency	1.2	2,883	0	\$447	\$7,239	16.2	x	x	
10% improved DX cooling efficiency	2.3	5,496	0	\$852	\$14,479	17.0			x
20% improved DX cooling efficiency	4.3	10,073	0	\$1,560	\$28,958	18.6			
30% improved DX cooling efficiency	5.9	13,948	0	\$2,160	\$43,437	20.1			
82% efficient gas furnace	0	0	249	\$233	\$1,116	4.8			
90% efficient gas furnace	0	0	1,133	\$1,060	\$6,151	5.8	x	x	
95% efficient gas furnace	0	0	1,611	\$1,503	\$9,297	6.2			x
Sensible heat recovery	0	-2,238	2,284	\$1,782	\$26,215	14.7			
Programmable thermostats for Multi Units, Affordable	0.1	1,711	807	\$1,020	\$902	0.9	x		
Communicating thermostats for Multi Units, Affordable	1.8	9,430	1,225	\$2,605	\$3,190	1.2		x	
Smart thermostats for Multi Units, Affordable	2.9	13,092	1,238	\$3,184	\$5,687	1.8			x
Mini-split Heat Pumps (Single Units)									
Electronically commutated motor	0.6	4,006	0	\$619	\$2,605	4.2		x	x
5% improved heat pump cooling efficiency	0.7	2,790	0	\$432	\$1,883	4.4	x		
10% improved heat pump cooling efficiency	1.4	5,267	0	\$815	\$3,767	4.6		x	
20% improved heat pump cooling efficiency	2.6	9,416	0	\$1,458	\$7,534	5.2			x
30% improved heat pump cooling efficiency	3.6	12,702	0	\$1,967	\$11,301	5.7			
5% improved heat pump heating efficiency	0	2,214	0	\$343	\$1,252	3.7	x	x	x
10% improved heat pump heating efficiency	0	4,192	0	\$650	\$2,505	3.9			
20% improved heat pump heating efficiency	0	7,526	0	\$1,166	\$5,009	4.3			
30% improved heat pump heating efficiency	0	10,155	0	\$1,574	\$7,514	4.8			
Sensible heat recovery	0	14,533	0	\$2,251	\$14,143	6.3			
Programmable thermostats for Single Units, Affordable	0	7,122	0	\$1,104	\$789	0.7	x		
Communicating thermostats for Single Units, Affordable	1	13,306	0	\$2,060	\$2,791	1.4		x	
Smart thermostats for Single Units, Affordable	1.5	14,661	0	\$2,271	\$4,976	2.2			x
Unit Heaters (Interior Parking)									
82% efficient gas furnace	0	0	221	\$209	\$422	2.0			x
90% efficient gas furnace	0	0	1,005	\$938	\$2,325	2.5			
95% efficient gas furnace	0	0	1,429	\$1,335	\$3,515	2.6			
Sensible heat recovery	0	-1,711	4,156	\$3,611	\$10,607	2.9			
Total heat recovery	-0.4	-3,718	4,593	\$3,704	\$11,783	3.2			

Strategy	Annual Savings			Energy Cost	Incremental First Cost	Payback (yrs)	Bundle 7	Bundle 8	Bundle 9
	Peak kW	kWh	Gas (Therm)						
CO sensor control of outdoor air	0	5,230	2,963	\$3,574	\$0	0.0	x	x	x
Direct-fired furnace	0	0	1,810	\$1,688	\$0	0.0			
AHUs (Corridors, Common Areas)									
Electronically commutated motor	1.1	7,452	-87	\$1,073	\$1,884	1.8		x	x
Variable speed fan at 67% minimum flow	5	30,671	-585	\$4,210	\$4,033	1.0			
Variable speed fan at 30% minimum flow	8.6	52,567	-1,039	\$7,180	\$4,033	0.6			
Fan system power at 0.85 BHP/1000cfm	1	6,101	-70	\$881	\$903	1.0			
5% improved DX cooling efficiency	0.3	365	0	\$56	\$2,717	48.5	x	x	x
10% improved DX cooling efficiency	0.5	692	0	\$106	\$5,433	51.3			
20% improved DX cooling efficiency	0.9	1,254	0	\$192	\$10,867	56.6			
30% improved DX cooling efficiency	1.2	1,713	0	\$265	\$16,300	61.5			
High efficiency DX compressor part load performance	1	1,556	0	\$240	\$10,504	43.8			
Premium efficiency DX compressor part load performance	2.7	4,135	0	\$640	\$21,371	33.4			
82% efficient gas furnace	0	0	28	\$29	\$419	14.4	x	x	x
90% efficient gas furnace	0	0	129	\$122	\$2,308	18.9			
95% efficient gas furnace	0	0	183	\$172	\$3,489	20.3			
Sensible heat recovery	0	-668	615	\$472	\$10,536	22.3			
Demand control ventilation for Shop	0	54	59	\$65	\$375	5.8			x
Architectural – Same as Scenario A									
Lighting – Same as Scenario A									
Plug/Process – Same as Scenario A									
Service Water Heating – Same as Scenario A									

Appendix B. Key Model Inputs

Core Definition

Building	Space Asset Area	Type	Area (ft ²)	Floors	Units	Arrangement	Flr/Flr Height
MARKET RATE	Multi Units, Market Rate	Apartments - Med/High Rise	42,230	5	40	Stacked	14.0
	Single Units, Market Rate	Apartments - Med/High Rise	31,430	5	47	Stacked	14.0
	Interior Parking	Garage - Enclosed	18,330	1	n/a	Adjacent / Grade	14.0
	Corridors	Common Areas - Multifamily	10,150	5	n/a	Stacked	14.0
	Common Areas	Common Areas - Multifamily	6,860	5	n/a	Stacked	14.0
AFFORDABLE	Multi Units, Affordable	Apartments - Med/High Rise	39,040	6	32	Adjacent / Grade	14.0
	Single Units, Affordable	Apartments - Med/High Rise	20,260	5	28	Stacked	14.0
	Interior Parking	Garage - Enclosed	14,760	1	n/a	Adjacent / Grade	14.0
	Corridors	Common Areas - Multifamily	8,170	5	n/a	Stacked	14.0
	Common Areas	Common Areas - Multifamily	5,520	5	n/a	Stacked	14.0
	Shop	Retail	960	1	n/a	Adjacent / Grade	14.0

Schedules

Space Asset Area	People Density (ft ² /person)	Daily Use							Hours per Day			Core Use Start Time	Partial Day Max Use Fraction	Applicable Months
		S	M	T	W	T	F	S	Full	Partial	Fans			
<u>Multi Units, Affordable</u>	380.0	●	●	●	●	●	●	●	14	7	24	6 pm	0.5	12
<u>Single Units, Affordable</u>	380.0	●	●	●	●	●	●	●	14	7	24	6 pm	0.5	12
<u>Interior Parking</u>	n/a	●	●	●	●	●	●	●	16	8	24	6 am	0.5	12
<u>Corridors</u>	0.0	●	●	●	●	●	●	●	16	3	24	11 am	0.5	12
<u>Common Areas</u>	100.0	●	●	●	●	●	●	●	7	3	18	11 am	0.5	12
<u>Shop</u>	67.0	●	●	●	●	●	●	●	8	4	12	9 am	0.5	12

- Full Use
- Partial Use
- No Use

Thermostat

Space Asset Area	Heating Set Point (°F)		Cooling Set Point (°F)	
	Occupied	Unoccupied	Occupied	Unoccupied
<u>Multi Units</u>	70	70	75	75
<u>Single Units</u>	70	70	75	75
<u>Interior Parking</u>	50	50	80	85
<u>Corridors</u>	70	70	75	75
<u>Common Areas</u>	70	60	75	80
<u>Shop</u>	70	60	75	86

Ventilation Requirements

Space Asset Area	Outside Air Per Person (ft ³ /min/person)	Outside Air Per Area (ft ³ /min/ft ²)	Exhaust Flow Per Area (ft ³ /min/ft ²)	Air Changes (ACH)	
				Occupied	Unoccupied
<u>Multi Units</u>	8.0	0.03	0.07	n/a	n/a
<u>Single Units</u>	8.0	0.03	0.07	n/a	n/a
<u>Interior Parking</u>	0.0	0.00	0.75	n/a	n/a
<u>Corridors</u>	0.0	0.06	0.00	n/a	n/a
<u>Common Areas</u>	5.0	0.06	0.00	n/a	n/a
<u>Shop</u>	7.5	0.12	0.00	n/a	n/a

Other Loads

Space Asset Area	Equipment Power Density (W/ft ²)	Process Load		Service Hot Water	
		Load (Btu/hr/ft ²)	Fuel Source	Consumption Flow/person (gal/day/person)	Consumption Miscellaneous Flow (gal/day)
<u>Multi Units</u>	0.62	0.00	Gas	18.0	0.0
<u>Single Units</u>	0.62	0.00	Gas	18.0	0.0
<u>Interior Parking</u>	0.00	0.00	Gas	0.0	0.0
<u>Corridors</u>	0.15	0.00	Gas	0.0	0.0
<u>Common Areas</u>	0.50	0.00	Gas	0.3	0.0
<u>Shop</u>	0.30	0.00	Gas	0.3	0.0

Utility Rates

Fuel	Utility	Rate
Electric	Madison Gas & Electric	Average rate: \$0.1550/kWh
Gas	Madison Gas & Electric	Average rate: \$0.9321/therm

Appendix C. Glazing Property Details

The following glazing strategy properties are shown here for reference. All strategies may not be shown in this report.

Frame	Glazing	Unit U-value	COG U-value*	SHGC	VT
Metal frame					
	high solar gain	0.42	0.30	0.38	0.70
	medium solar gain, high transparency	0.42	0.29	0.29	0.62
	medium solar gain	0.42	0.30	0.29	0.39
	low solar gain	0.42	0.30	0.19	0.20
	high solar gain w/ argon	0.38	0.25	0.37	0.70
	medium solar gain w/ argon, high transparency	0.38	0.25	0.29	0.62
	medium solar gain w/ argon	0.38	0.25	0.29	0.39
	low solar gain w/ argon	0.38	0.25	0.19	0.20
Improved metal frame**					
	high solar gain	0.36	0.30	0.38	0.70
	medium solar gain, high transparency	0.36	0.29	0.29	0.62
	medium solar gain	0.36	0.30	0.29	0.39
	low solar gain	0.36	0.30	0.19	0.20
Non-metal frame					
	high solar gain	0.32	0.30	0.38	0.70
	medium solar gain, high transparency	0.32	0.29	0.29	0.62
	medium solar gain	0.32	0.30	0.29	0.39
	low solar gain	0.32	0.30	0.19	0.20
	high solar gain w/ argon	0.28	0.25	0.37	0.70
	medium solar gain w/ argon, high transparency	0.28	0.25	0.29	0.62
	medium solar gain w/ argon	0.28	0.25	0.29	0.39
	low solar gain w/ argon	0.28	0.25	0.19	0.20
Triple pane metal frame					
	high solar gain triple pane	0.29	0.16	0.33	0.60
	medium solar gain triple pane, high transparency	0.29	0.16	0.25	0.53
	medium solar gain triple pane	0.29	0.16	0.24	0.34
	low solar gain triple pane	0.29	0.16	0.14	0.18
	high solar gain triple pane w/ argon	0.26	0.13	0.32	0.60
	medium solar gain triple pane w/ argon, high transparency	0.26	0.13	0.25	0.53
	medium solar gain triple pane w/ argon	0.26	0.13	0.24	0.34
	low solar gain triple pane w/ argon	0.26	0.13	0.14	0.18
Triple pane non-metal frame					
	high solar gain triple pane	0.19	0.16	0.33	0.60
	medium solar gain triple pane, high transparency	0.19	0.16	0.25	0.53
	medium solar gain triple pane	0.19	0.16	0.24	0.34
	low solar gain triple pane	0.19	0.16	0.14	0.18
	high solar gain triple pane w/ argon	0.16	0.13	0.32	0.60
	medium solar gain triple pane w/ argon, high transparency	0.16	0.13	0.25	0.53
	medium solar gain triple pane w/ argon	0.16	0.13	0.24	0.34
	low solar gain triple pane w/ argon	0.16	0.13	0.14	0.18

* COG U-value shown for reference only. Unit U-value will be used for verification. It includes the impacts of the frame design in addition to the COG-U value of the selected glazing.

** Improved metal frame values are typically achieved by increasing the thermal break from 3/8" to 3/4"

Appendix D. Project Participants

Name	Company	Email	Phone
Mark Hammond	MSP Real Estate	mhammond@msphousing.com	952.351.4540
Alyssa Klecker	MSP Real Estate	aklecker@msphousing.com	952.351.4540
Ben Shearer	MSP Real Estate	bshearer@msphousing.com	414.208.8745
Bjorn Hallsson	Dimension IV- Madison Design Group	bhallsson@dimensionivmadison.com	608.829.4477
Lara Bakker	Focus on Energy	lara.bakker@focusonenergy.com	608.709.5172
Annie Hu	Focus on Energy	ahu@willdan.com	312.273.5307